

Author Index

- Adamopoulos S, *see* Coats, 685
 Ahlner J, *see* Torfgård, 701
 Alfieri O, *see* Ferrari, 371
 Almkvist H, *see* Thulin, 845
 Amery A, *see* Lijnen, 509
 Anderson RH, Becker AE (eds). The Heart: Structure in Health and Disease, 517
 Archer S, *see* Thadani, 199
 Arosio E, Pancera P, Sheiban I, Priante F, Ribul M, De Marchi S, Montresor G, Lechi A. Modifications in Peripheral Hemodynamics and Left Ventricular Function in Hypertensives Treated with Nicardipine Slow Release, 167
 Asano S, *see* Kira, 251
 Asanagi M, *see* Moritani, 749
 Aupetit J-F, *see* Timour, 877
 Bachetti T, *see* Ferrari, 565
 Biral di P, *see* Modena, 153
 Barnett DB, *see* Cowley, 829
 Bartels GL, *see* Venneker, 211
 Bassenge E. Coronary Vasomotor Responses: Role of Endothelium and Nitrovasodilators, 601
 Battler A, *see* Hasdai, 589
 Bauer JA, *see* Fung, 489
 Bayes-de-Luna A, Vinolas X, Guindo J, Bayes-Genis A. Risk Stratification after Myocardial Infarction: Role of Electrical Instability, Ischemia, and Left Ventricular Function, 335
 Bayes-Genis A, *see* Bayes-de-Luna, 335
 Becker AE, *see* Anderson, 517
 Beil AH, Schmieder RE, Messerli FH. Salt Intake, Blood Pressure, and Cardiovascular Structure, 425
 Benedict CR, *see* Pouleur, 313
 Berglund L, *see* Thulin, 845
 Bernocchi P, *see* Ferrari, 565
 Berra P, *see* Ferrari, 371
 Besse S, Delcayre C, Chevalier B, Hardouin S, Heymes C, Bourgeois F, Moalic J-M, Swynghedauw B. Is the Senescent Heart Overloaded and Already Failing? 581
 Bexton RS, *see* Cowley, 829
 Biscione F, *see* Santarelli, 653
 Björnsson T, *see* Thulin, 845
 Bogaert MG. Clinical Pharmacokinetics of Nitrates, 693
 Bolognesi R, *see* Ferrari, 565
 Boraso A, *see* Ferrari, 565
 Bormann G, *see* Zierhut, 235
 Bourgeois F, *see* Besse, 581
 Boyle R, *see* Cowley, 829
 Bruschke AVG, *see* van der Wall, 345
 Bucca V, *see* Di Pasquale, 875
 Buikema H, *see* van Veldhuisen, 245
 Caccese P, *see* De Caprio, 735
 Camacho-Vázquez C, *see* de Teresa, 837
 Camichi P, Marraccini P, Gistri R, Salvadori P, Sorace O, L'Abbate A. Andrennergically-Mediated Coronary Vasoconstriction in Patients with Syndrome X, 221
 Camici PG, *see* Gistri, 169
 Campbell RWF. Post-Infarct Heart Failure: What to Do in Addition to ACE Inhibition, 115
 Canter D, *see* Miller, 271
 Cats V Manger, *see* van der Wall, 345
 Ceconi C, *see* Ferrari, 371
 Chalmers JP, *see* van Zweiten, 787
 Chevalier B, *see* Besse, 581
 Chevrel G, *see* Timour, 877
 Chin JC, *see* van der Wall, 345
 Choudhury L, *see* Gistri, 169
 Christen MO, *see* Ernberger, 27
 Chrysant S, *see* Thadani, 199
 Cicatiello AM, *see* De Caprio, 735
 Coats AJS, Adamopoulos S. Neurohormonal Mechanisms and the Role of Angiotensin-Converting Enzyme (ACE) Inhibitors in Heart Failure, 685
 Cohen MV, *see* Liu, 881
 Cohn JN. Treatment of Infarct Related Heart Failure: Vasodilators Other than ACE Inhibitors, 119
 Collins LA, *see* Ernberger, 27
 Copen D, *see* Thadani, 199
 Cosenzi A, Waltman FL, van Es PN, de Leeuw PW. Doxazosin Versus Nifedipine: A Double-Blind Comparative Study in Patients Adhering to a Sodium-Restricted Diet, 473
 Cowley AJ, McEntegart DJ, Hampton JR, Barnett DB, Bexton RS, Boyle R, Hanley SP, Millar-Craig M, Morris GK, Nicholls AJ, Nicholls DP, Oakley GDG, Thomas RD, Ward C, Wynne RD. Long-Term Evaluation of Treatment for Chronic Heart Failure: A 1 Year Comparative Trial of Flosequinan and Captopril, 829
 Cruickshank JM. J-Curve in Antihypertensive Therapy—Does it Exist? A Personal Point of View, 757
 Cruickshank JM, *see* Dollery, 279
 Cucchini F, *see* Ferrari, 565
 Danish Study Group on Verapamil in Myocardial Infarction, *see* Jespersen, 823
 Dargie H, *see* Ray, 433
 De Caprio L, De Rosa ML, Di Palma A, Lirato C, Caccese P, Sestito M, Lastoria S, Cicatiello AM, Rengo F. Regression of Left Ventricular Hypertrophy and Improvement of Renal Hemodynamics in Hypertensive Patients Treated With Quinapril, 735
 de Geest H, *see* Zmudka, 479
 de Giuli F, *see* Ferrari, 371
 de Graeff P, *see* van Veldhuisen, 245
 Delcan JL, *see* Lopez-Sendon, 393
 Delcayre C, *see* Besse, 581
 de Leeuw PW, *see* Cosenzi, 473
 De Marchi S, *see* Arosio, 167
 Demopoulos L, LeJemtel TH. Peripheral Factors in the Management of Congestive heart Failure, 75
 De Rosa ML, *see* De Caprio, 735
 de Sa E Lopez, *see* Lopez-Sendon, 393
 de Smet B, *see* van Veldhuisen, 245
 de Teresa E, González M, Camacho-Vázquez C, Tabuena MJ. Effects of Bisoprolol on Left Ventricular Hypertrophy in Essential Hypertension, 837
 De Palma A, *see* De Caprio, 735
 Di Pasquale P, Paterna S, Bucca V, Licata G. Effects of Administration of Captopril, Metoprolol and the Captopril-metoprolol Combination as Adjuvant Therapy during Thrombolysis in Acute Myocardial Infarction, 875
 Dollery CT, Frishman WH, Cruickshank JM. Review of "Current Cardiovascular Drugs, 1st Edition," 279
 Dominik P. Historic Aspects in the Identification of the I₁ Receptor and the Pharmacology of Imidazolines, 21
 Downey JM, *see* Liu, 881
 Dreshaj I, *see* Ernberger, 27
 Dubiel J, *see* Zmudka, 479
 Dupuis J. Nitrates in Congestive Heart Failure, 501
 Ebert A Genovesi, *see* Gistri, 169
 Endo H, Shiraishi H, Yanagisawa M. Afterload Reduction by Hydralazine in Children with a Ventricular Septal Defect as Determined by Aortic Input Impedance, 161
 Enopius R, Opie LH. Effect of the Angiotensin-Converting Enzyme Inhibitor, Perindoprilat, and of Angiotensin-II on the Transient Inward Current of Rabbit Ventricular Myocytes, 647

- Ernsberger P, Haxhiu MA, Graff LM, Collins LA, Dreshaj I, Grove DL, Graves ME, Schafer SG, Christen MO. A Novel Mechanism of Action for Hypertensive Control: Moxonidine as a Selective I₁-Imidazoline Agonist, 27
- Fabrizio L, Regan TJ. Alcoholic Cardiomyopathy, 89
- Fagher B, *see* Thulin, 845
- Fasoli G, *see* Scognamiglio, 319
- Faucon G, *see* Timour, 877
- Fein FS, Sonnenblick EH. Diabetic Cardiomyopathy, 65
- Ferrari R, Cucchini F, Bolognesi R, Bachetti T, Boraso A, Bernocchi P, Gaia G, Visioli O. How Do Calcium Antagonists Differ in Clinical Practice? 565
- Ferrari R, La Canna G, Giubbini R, Milan E, Ceconi C, de Giuli F, Berra P, Alfieri O, Visioli O. Left Ventricular Dysfunction due to Stunning and Hibernation in Patients, 371
- Flameng W, *see* Zmudka, 479
- Fox K, *see* Holdright, 193
- Fox K, *see* Purcell, 727
- Fragakis N, *see* Kyriakides, 775
- Frishman WH, *see* Dollery, 279
- Frohlich ED (ed), *see* Kotchen, 279
- Fujiwara R, Hayashi T, Nakai T, Miyabo S. Diltiazem Inhibits DNA Synthesis and Ca²⁺ Uptake Induced by Insulin, IGF-I, and PDGF in Vascular Smooth Muscle Cells, 861
- Fukasawa M, *see* Orita, 129
- Fukasawa M, *see* Orita, 851
- Fukui K, *see* Orita, 129, 851
- Fung H-L, Bauer JA. Mechanisms of Nitrate Tolerance, 489
- Gaia G, *see* Ferrari, 565
- Gasser RNA, Klein W. Contractile Failure in Early Myocardial Ischemia: Models and Mechanisms, 813
- Gheorghade M, *see* Tauke, 761
- Ghosh S, *see* Singh, 569
- Giles T, *see* Thadani, 199
- Girbes A, *see* van Veldhuisen, 245
- Gistri R, Ebert A, Genovesi, Palombo C, Marabotti C, Choudhury L, Camici PG. Effect of Blood Pressure Lowering on Coronary Vasodilator Reserve in Arterial Hypertension, 169
- Gistri R, *see* Camici, 221
- Giubbini R, *see* Ferrari, 371
- Gmerek A, *see* Miller, 271
- Godfraind T. Cardiosensitivity of Calcium Antagonists, 353
- González M, *see* de Teresa, 837
- Gorwit J, *see* Thadani, 199
- Graff LM, *see* Ernberger, 27
- Graves ME, *see* Ernberger, 27
- Grove DL, *see* Ernberger, 27
- Guindo J, *see* Bayes-de-Luna, 335
- Hagerup L, *see* Vaage-Nilsen, 147
- Hampton JR, *see* Cowley, 829
- Han D, *see* Tauke, 761
- Hanley SP, *see* Cowley, 829
- Hansen J Fischer. Review of Postinfarct Treatment with Verapamil, 543
- Hansen J Fischer, *see* Vaage-Nilsen, 147
- Hardouin S, *see* Besse, 581
- Harris P. The Problem of Defining Heart Failure, 477
- Hasdai D, Kornowski R, Battler A. Endothelin and Myocardial Ischemia, 589
- Hasegawa J, Mashiba H. Transient Sexual Dysfunction Observed during Antiarrhythmic Therapy by Long-Acting Disopyramide in a Male Wolff-Parkinson-White Patient, 277
- Hashimoto E, *see* Kira, 251
- Hashimoto K, *see* Nakae, 137
- Haxhiu MA, *see* Ernberger, 27
- Hayashi T, *see* Fujiwara, 861
- Hayashida W, van Eyck C, Rousseau MF, Pouleur H. Effects of Ranolazine on Left Ventricular Regional Diastolic Function in Patients with Ischemic Heart Disease, 741
- Henningsen N, *see* Thulin, 845
- Heymes C, *see* Besse, 581
- Heyndrickx GR, *see* Melin, 381
- Hirooka S, *see* Orita, 129, 851
- Hobbs S, *see* Thadani, 199
- Hof R, *see* Zierhut, 235
- Holdright D, Sparrow J, Wright C, Steiner J, Fox K. Effect of Acadesine, a New Metabolic Agent, on Exercise-Induced Myocardial Ischemia in Chronic Stable Angina, 193
- Holländer NH, *see* Vaage-Nilsen, 147
- Honkavaara M, *see* Thulin, 845
- Iliodromitis E, *see* Kyriakides, 775
- Itakura A, *see* Saida, 365
- Iteld B, *see* Thadani, 199
- Jespersen CM, Danish Study Group on Verapamil in Myocardial Infarction. Role of Ischemia in Post Infarction Heart Failure: Hypothetical Considerations Based on the Use of Verapamil in the DAVIT II Study, 823
- Jones PH. Low Serum Cholesterol Increases the Risk of Noncardiovascular Events: An Antagonist Viewpoint, 871
- Jugdutt BI. Nitrates in Myocardial Infarction, 635
- Julius S. Abnormalities of Autonomic Nervous Control in Human Hypertension, 11
- Kajiyama K, *see* Koga, 83
- Kaplan NH. Comments on Robertson's Critical Review, 673
- Kaplinsky E. Significance of Left Ventricular Hypertrophy in Cardiovascular Morbidity and Mortality, 549
- Kinoshita M, *see* Nakae, 137
- Kira Y, Nakaoka T, Hashimoto E, Okabe F, Asano S, Sekine I. Effect of Long-Term Cyclic Mechanical Load on Protein Synthesis and Morphological Changes in Cultured Myocardial Cells from Neonatal Rat, 251
- Klein W, *see* Gasser, 813
- Koga Y, Toshima H, Tanaka M, Kajiyama K. Therapeutic Management of Dilated Cardiomyopathy, 83
- Kohi M, *see* Orita, 129
- Kornowski R, *see* Hasdai, 589
- Kotchen TA, Frohlich ED (ed). Review of "Advances in Hypertension 1993," 279
- Krauss XH, *see* Venneker, 211
- Kremastinos DT, *see* Kyriakides, 775
- Kruijssen D, *see* Venneker, 211
- Kyriakides ZS, Markianos M, Iliodromitis E, Tsiapras D, Fragakis N, Kremastinos DT. Peripheral Vein Plasma Endothelin-1 Levels During Coronary Angioplasty Increase Only in Normotensive Patients, 775
- L'Abbate A, *see* Camici, 221
- La Canna G, *see* Ferrari, 371
- Lamers J, *see* Sassen, 179
- Lamers JMJ, *see* Sharma, 461
- Lanza GA, *see* Santarelli, 653
- Lastoria S, *see* De Caprio, 735
- Lechi A, *see* Arosio, 167
- Leikola-Pelho T, *see* Lilleberg, 263
- Le Jemtel TH, *see* Demopoulos, 75
- Lévy S. Amiodarone as a First-Line Drug in the Treatment of Atrial Fibrillation: The Protagonist Viewpoint, 769
- Lewis BS, Poole-Wilson PA (DEFIANT Study Group). The DEFIANT Study of Left Ventricular Function and Exercise Performance after Acute Myocardial Infarction, 407
- Licata G, *see* Di Pasquale, 875
- Lie K, *see* van Veldhuisen, 245
- Lijnen HR, *see* Verstraete, 801
- Lijnen P, van Hoof R, Amery A. Effects of Celiprolol vs. Nifedipine on Serum Lipoproteins in Patients with Mild to Moderate Hypertension, 509
- Lilleberg L, Sundberg S, Leikola-Pelho T, Nieminen M. Hemodynamic Effects of the Novel Cardiotonic Drug Simendan: Echocardiographic Assessment in Healthy Volunteers, 263
- Lipicky RJ, *see* Thadani, 611, 625
- Lirato C, *see* De Caprio, 735

- Liu P, Olivieri N. Iron Overload Cardio-Myopathies: New Insights into an Old Disease, 101
- Liu Y, Cohen MV, Downey JM. Chele-rythrine, a Highly Selective Protein Kinase C Inhibitor, Blocks the Anti-Infarct Effect of Ischemic Preconditioning in Rabbit Hearts, 881
- Lopez-Sendon J, de Sa E Lopez, Delcan JL. Ischemic Right Ventricular Dysfunction, 393
- Loufoua-Moundanga J, *see* Timour, 877
- McEntegart DJ, *see* Cowley, 829
- McKenna WJ, *see* Stewart, 95
- Maestri M, *see* Oneglia, 515
- Manzoli A, *see* Santarelli, 653
- Marin M, *see* Scognamiglio, 319
- Markianos M, *see* Kyriakides, 775
- Marabotti C, *see* Gistri, 169
- Marracini P, *see* Camici, 221
- Masciocco G, *see* Modena, 153
- Mashiba H, *see* Hasegawa, 277
- Mattioli G, *see* Modena, 153
- Mellemegaard K, *see* Vaage-Nilsen, 147
- Melin JA, Wijns W, Vanoverschelde JL, Heyndrickx GR. Assessment of Left Ventricular Dysfunction by Nuclear Cardiology, 381
- Messerli FH. Antihypertensive Therapy: Past, Present, and Future, 7
- Messerli FH, *see* Beil, 425
- Messerli FH, Soria F. Ventricular Dysrhythmias, Left Ventricular Hypertrophy, and Sudden Death, 557
- Milan E, *see* Ferrari, 371
- Millar-Craig M, *see* Cowley, 829
- Miller MA, Texter M, Gmerek A, Robbins J, Shurzinske L, Canter D. Quinapril Hydrochloride Effects on Renal Function in Patients with Renal Dysfunction and Hypertension: A Drug-Withdrawal Study, 271
- Mitamura H, *see* Moritani, 749
- Miyabo S, *see* Fujiwara, 861
- Miyazaki T, *see* Moritani, 749
- Miyoshi S, *see* Moritani, 749
- Moalic J-M, *see* Besse, 581
- Modena MG, Masciocco G, Rossi R, Baraldi P, Mattioli G. Evaluation of the Effectiveness of Isradipine SRO in the Treatment of Hypertensive Patients with Left Ventricular Hypertrophy, 153
- Montresor G, *see* Arosio, 167
- Morris GK, *see* Cowley, 829
- Moritani K, Miyazaki T, Miyoshi S, Asanagi M, Zhao L-S, Mitamura H, Ogawa S. Blockade of ATP-Sensitive Potassium Channels by 5-Hydroxydecanoate Suppresses Monophasic Action Potential Shortening During Regional Myocardial Ischemia, 749
- Mulcahy D, *see* Purcell, 727
- Nakae I, Quan L, Hashimoto K, Sugimoto Y, Tsutamoto T, Kinoshita M. Mechanism of the Vasodilatory Action of Nicorandil on Coronary Circulation in Dogs, 137
- Nakai T, *see* Fujiwara R, 861
- Nakaoka T, *see* Kira, 251
- Natale A, *see* Santarelli, 653
- Nauckarinen V, *see* Thulin, 845
- Niaz MA, *see* Singh, 659
- Nicholls AJ, *see* Cowley, 829
- Nicholls DP, *see* Cowley, 829
- Nielsen I, *see* Vaage-Nilsen, 147
- Nieminen M, *see* Lilleberg, 263
- Nistri S, *see* Scognamiglio, 319
- Nordenström P, *see* Thulin, 845
- Oakley GDG, *see* Cowley, 829
- Ogawa S, *see* Moritani, 749
- Okabe F, *see* Kira, 251
- Olivieri N, *see* Liu, 101
- Omar S, *see* Timour, 877
- Oneglia C, Maestri M. Dysuria as a Side Effect of Dopamine Therapy, 515
- Opie LH, *see* Enous, 647
- Opie LH. Myocardial Stunning—Are Calcium Antagonists Useful? 533
- Opie LH, *see* Thadani, 719
- Opie LH. The Ever Expanding Spectrum of Ischemic Left Ventricular Dysfunction, 297
- Opie LH. The New Trials: AIRE, ISIS-4 and GISSI-3. Is the Dossier on ACE Inhibitors and Myocardial Infarction Now Complete? 469
- Orita H, Fukasawa M, Hirooka S, Fukui K, Kohi M, Washio M. In Vitro Protective Effects of Nicorandil on Hypothermic Injury to Immature Cardiac Myocytes: Comparison with Nitroglycerin, 129
- Orita H, Fukasawa M, Hirooka S, Uchino H, Fukui K, Washio M. In Vitro Evaluation of Phosphate, Bicarbonate and Hepes Buffered Storage Solutions on Hypothermic Injury to Immature Myocytes, 851
- Orito K, *see* Satoh, 227
- Palombo C, *see* Gistri, 169
- Pancera P, *see* Arosio, 167
- Paterna S, *see* Di Pasquale, 875
- Paulus WJ. Endothelial Control of Vascular and Myocardial Function in Heart Failure, 437
- Pauwels EJK, *see* van der Wall, 345
- Pedersen-Bjergaard O, *see* Vaage-Nilsen, 147
- Penner SB, Smyth DD. Central and Renal I₁ Imidazoline Preferring Receptors: Two Unique Sites Mediating Natriuresis in the Rat, 43
- Pfeffer MA, *see* Vaughan, 453
- Poole-Wilson PA, *see* Lewis, 407
- Pouleur H, Benedict CR, Rousseau MF. Neurohormones in Patients with Ischemic Left Ventricular Dysfunction, 313
- Pouleur H, *see* Hayashida, 741
- Priante F, *see* Arosio, 167
- Prichard BNC. Clinical Experience with Moxonidine, 49
- Purcell H, Mulcahy D, Fox K. Nitrates in Silent Ischemia, 727
- Quan L, *see* Nakae, 137
- Rasmussen V, *see* Vaage-Nilsen, 147
- Ray S, Dargie H. Infarct-Related Heart Failure: The Choice of ACE Inhibitor Does Not Matter, 433
- Regan TJ, *see* Fabrizio, 89
- Remme W, *see* Venneker, 211
- Rengo F, *see* De Caprio, 735
- Ribul M, *see* Arosio, 167
- Robertson JIS. Dr. Robertson's reply to Dr. Kaplan, 675
- Robertson JIS. Guidelines for the Treatment of Hypertension: A Critical Review, 665
- Robbins J, *see* Miller, 271
- Rossi R, *see* Modena, 153
- Rousseau MF, *see* Hayashida, 741
- Rousseau MF, *see* Pouleur, 313
- Rüegg U, *see* Zierhut, 235
- Saida K, Umeda M, Itakura A. Improvement of Ischemic Myocardial Dysfunction by Nisoldipine, 365
- Salvadori P, *see* Camici, 221
- Salzmann R, *see* Zierhut, 235
- Santarelli P, Biscione F, Natale A, Manzoli A, Lanza GA. Electrophysiologic effects of Amlodipine vs. Diltiazem in Patients with Coronary Artery Disease and Beta-Blocking Therapy, 653
- Sasayama S. Effect of Coronary Collateral Circulation on Myocardial Ischemia and Ventricular Dysfunction, 327
- Sassen L, Lamers J, Verdouw P. Fish Oil and the Prevention and Regression of Atherosclerosis, 179
- Satoh K, Orito K, Yoneyama F, Taira N. A Further Study of the Vasodilator and Negative Inotropic Mechanisms of Action of Nicorandil and its Congeners in the Canine Heart, 227
- Schafer SG, *see* Ernsberger, 27
- Schmieder RE, *see* Beil, 425
- Scholten E, *see* van Veldhuisen, 245
- Scognamiglio R, Fasoli G, Nistri S, Marin M, Volta S. Left Ventricular Function and Prognosis after Myocardial Infarction: Rationale for Therapeutic Strategies, 319
- Sekine I, *see* Kira, 251
- Sestito M, *see* De Caprio, 735

- Sharma HS, Verdouw PD, Lamers JMJ. Involvement of the Sarcoplasmic Reticulum Calcium Pump in Myocardial Contractile Dysfunction: Comparison Between Chronic Pressure-overload and Stunning, 461
- Sheiban I, *see* Arosio, 167
- Shiraishi H, *see* Endo, 161
- Slurzynski L, *see* Miller, 271
- Sigurd BM, *see* Vaage-Nilsen, 147
- Sillanpää J, *see* Thulin, 845
- Singh RB, Niaz MA, Ghosh S. Hypolipidemic and Antioxidant Effects of Commiphora Mukul as an Adjunct to Dietary Therapy in Patients with Hypercholesterolemia, 659
- Singh S, *see* Thadani, 199
- Smyth DD, *see* Penner, 43
- Sonneblick EH, *see* Fein, 65
- Sorace O, *see* Camici, 221
- Sørensen M Borring, *see* Vaage-Nilsen, 147
- Soria F, *see* Messerli, 557
- Sparrow J, *see* Holdright, 193
- Steiner J, *see* Holdright, 193
- Stewart JT, McKenna WJ. Management of Arrhythmias in Hypertrophic Cardiomyopathy, 95
- Storm C, *see* Venneker, 211
- Sugimoto Y, *see* Nakae, 137
- Sundberg S, *see* Lilleberg, 263
- Sung RJ. Low-Dose Amiodarone Should Not Be the First-line Treatment for Atrial Fibrillation, 773
- Swan HJC. Left Ventricular Dysfunction in Ischemic Heart Disease: Fundamental Importance of the Fibrous Matrix, 305
- Swanepoel CR. Which Diuretic to Use? 123
- Swynghedauw B, *see* Besse, 581
- Tabuenca MJ, *see* de Teresa, 837
- Taira N, *see* Satoh, 227
- Tanaka M, *see* Koga, 83
- Tauke J, Han D, Gheorghiade M. Reassessment of Digoxin and Other Low-Dose Positive Inotropes in the Treatment of Chronic Heart Failure, 761
- Texter M, *see* Miller, 271
- Thadani U, Lipicky RJ. Short- and Long-Acting Oral Nitrates for Stable Angina Pectoris, 611
- Thadani U, Chrysant S, Gorwit J, Giles T, Archer S, Iteld B, Singh S, Copen D, Wakeford C, Hobbs S. Duration of Effects of Isradipine During Twice Daily Therapy in Angina Pectoris, 199
- Thadani U, Lipicky RJ. Ointments and Transdermal Nitroglycerin Patches for Stable Angina Pectoris, 625
- Thadani U, Opie LH. Nitrates for Unstable Angina, 719
- Thomas RD, *see* Cowley, 829
- Thulin T, Almkvist H, Berglund L, Björnsson T, Fagher B, Henningsen N, Honkavarra M, Naukkarinen V, Nordenström P, Sillanpää J, West K. Efficacy and Tolerability of Felodipine ER and Diltiazem SR as Monotherapy in Primary Hypertension: A Double-Blind Randomized Study, 845
- Timour Q, Aupetit J-F, Chevrel G, Loufoua-Moundanga J, Omar S, Faucon G. Time Course of Electrical Fibrillation Threshold During Brief Periods of Myocardial Ischemia and the Genesis of Fibrillation: Role of Calcium, 877
- Torfgård KE, Ahlner J. Mechanisms of Action of Nitrates, 701
- Toshima H, *see* Koga, 83
- Tsiapras D, *see* Kyriakides, 775
- Tsutamoto T, *see* Nakae, 137
- Uchino H, *see* Orita, 851
- Umeda M, *see* Saidá, 365
- Vaage-Nilsen M, Rasmussen, V, Hansen J Fischer, Hagerup L, Sørensen M Borring, Pedersen-Bjergaard O, Mellemgaard K, Holländer NH, Nielsen I, Sigurd BM. Effect of Verapamil on Arrhythmias and Heart Rate During 16 Months Following an Acute Myocardial Infarction, 147
- van der Wall EE, Cats V Manger, Chin JC, Pauwels EJK, Bruschke AVG. Acute Effects of Intravenous Nisoldipine on Left Ventricular Function After Acute Myocardial Infarction, 345
- van Es PN, *see* Cosenzi, 473
- van Eyll C, *see* Hayashida, 741
- van Gilst W, *see* van Veldhuisen, 245
- Vanhaecke J, *see* Zmudka, 479
- van Hoof R, *see* Lijnen, 509
- van Hoogenhuyze D, *see* Venneker, 211
- Vanoverschelde JL, *see* Melin, 381
- van Schelven D, *see* Venneker, 211
- van Veldhuisen D, van Gilst W, de Smet B, de Graeff P, Scholtens E, Bui-kema H, Girbes A, Wesseling H, Lie K. Neurohumoral and Hemodynamic Effects of Ibopamine in a Rat Model of Chronic Myocardial Infarction and Heart Failure, 245
- Van Zweiten PA, Chalmers JP. Different types of Centrally Acting Antihypertensives and Their Targets in the Central Nervous System, 787
- Vaughan DE, Pfeffer MA. Post-Myocardial Infarction Ventricular Remodeling: Animal and Human Studies, 453
- Venneker E, Remme W, van Hoogenhuyze D, Krauss XH, Bartels GL, Kruijsen D, Storm C, van Schelven D. Acute Systemic and Antischemic Effects of Epanolol in Patients with Coronary Artery Disease, 211
- Verdouw P, *see* Sassen, 179
- Verdouw PD, *see* Sharma, 461
- Verstraete M, Lijnen HR. Novel Thrombolytic Agents, 801
- Vinolas X, *see* Bayes-de-Luna, 335
- Visioli O, *see* Ferrari, 371, 565
- Volta S Dalla, *see* Scognamiglio, 319
- Wakeford C, *see* Thadani, 199
- Waltman FL, *see* Cosenzi, 473
- Ward C, *see* Cowley, 829
- Washio M, *see* Orita, 129, 851
- Wesseling H, *see* van Veldhuisen, 245
- West K, *see* Thulin, 845
- Wijns W, *see* Melin, 381
- Wilson PA Poole. When to Start an ACE Inhibitor and in Whom, 111
- Wright C, *see* Holdright, 193
- Wynne RD, *see* Cowley, 829
- Yanagisawa M, *see* Endo, 161
- Yoneyama F, *see* Satoh, 227
- Zhao L-S, *see* Moritani, 749
- Zierhut W, Salzmann R, Bormann G, Rüegg U, Hof R. Pharmacological Actions of SDZ 218-135, a Novel Positive Inotropic Agent, 235
- Zmudka K, Dubiel J, Vanhaecke J, Flammeng W, de Geest H. Effects of Oral Pretreatment with Metoprolol on Left Ventricular Wall Motion, Infarct Size, Hemodynamics, and Regional Myocardial Blood Flow in Anesthetized Dogs During Thrombotic Coronary Artery Occlusion and Reperfusion, 479

Subject Index

- Acadesine
 biochemical and hematological effects, 195
 effect on exercise-induced myocardial ischemia in chronic stable angina, 193-196
 effect on rate-pressure product with exercise, 195
 vs. nitroglycerine, 196
 Acebutolol, with nifedipine, 572, 573
 ACE inhibitors. *See* Angiotensin converting enzyme inhibitors
 Acetaminophen, 724
 Acetylcholine, 603, 606
 blunted response, 439
 vasodilatory response blunted in CHF patients, 77-78, 80
 Action potential prolongation, SDZ 218-135 as positive inotropic agent, 235-243
 Action potential shortening, blockade of IK_{ATP} by 5-hydroxydecanoate, 749-755
 Acute Infarction Ramipril Efficacy study, 433, 434-435
 ACE inhibitor trials, 469-471
 ramipril effect on rate of reinfarction, 112, 113
 significance, 435-436
 use of ramipril and, 688
 Acute myocardial infarction
 before LV dysfunction, 373-374
 DAVIT II verapamil trial on arrhythmias and heart rate, 147-151
 endothelial dysfunction, 444
 nisoldipine (IV) effects on LV function after, 345-350
 Adenosine, as cardioprotective agent, acadesine as regulating agent, 193-196
 Adenosine diphosphate, 708, 710
 Adenosine regulating agents, acadesine, 193-196
 Adenosine triphosphate (ATP), clonidine effect, 28
 Adenosine triphosphate-sensitive potassium channels, blockade of IK_{ATP} by 5-hydroxydecanoate, 749-755
 Aortic syndrome, 398
 Adrenaline, 603
 Adrenergic system, senescent heart overloading and failure, 581-585
 Adrenergic vasoconstriction, α_1 receptors in Syndrome X, 221-225
 Adrenomedullary chromaffin cells, 27, 28-29
 Afterload, definition, 163
 Afterload wall stress, to determine afterload reduction for hydralazine administration, 161-166
Agelenopsis aperta, 354
 Aging
 exogenous and endogenous coronary nitric oxide, 602
 fibrous matrix function and collagen production, 311
 senescent heart overloading and failure, 581-585
 Agranulocytosis, vesnarinone side effect with congestive heart failure, 84
 AIRE study. *See* Acute Infarction Ramipril Efficacy
 Alcoholic cardiomyopathy, 89-93
 clinical manifestation, 90
 determinants of, 90
 drug interactions, 93
 preclinical stage, 89-90
 therapy, 90-93
 Alcohol restriction, hypertension and, 669
 Aldosterone, 736
 congestive heart failure, 687
 vasodilators and dilated cardiomyopathy, 84
 Alloxan, inducing diabetic cardiomyopathy in dogs, 67
 Alpha-adrenergic blockade, hemodynamic response of dogs to hindquarter compression, 14-15
 Alpha-adrenergic vasoconstriction, sympathetic overactivity, 15
 α_1 -adrenergic receptors, 36
 α_1 -adrenoceptor blocking drugs, vs. moxonidine, 49, 52-53, 54
 α_1 adrenoceptors, in Syndrome X, 221-225
 α_1 blockade, vs. moxonidine, 49, 52-53, 54
 α_2 -adrenergic receptors, imidazolines to produce side effects as well as lowering in blood pressure, 27, 29-30, 31, 33, 34-35, 36-37
 α_2 -adrenoceptors, stimulation in nucleus tractus solitarius (NTS), effect on arterial blood pressure, 21-26
 Alpha-blocker, hypertension trials and, 668, 669
 American Heart Association (AHA), 735
 meeting in Atlanta, Nov. 1993, 720
 American Society of Endocardiography, 736
 Amiloride
 decreasing reperfusion stunning, 536
 for inhibition of interstitial myocardial fibrosis, 310
 sensitivity as basis for subclassification of imidazoline preferring receptor subtypes, 43
 with hydrochlorothiazide, 126
 with loop diuretics, 126
 p-aminoclonidine, 28
 Amiodarone
 for arrhythmia management in hypertrophic cardiomyopathy, 95, 98
 in atrial fibrillation, 769-771
 interaction with alcohol, for alcoholic cardiomyopathy, 93
 low-dose not recommended as first-line treatment for atrial fibrillation, 773-774
 not added to ACE inhibition for heart failure patients, 116
 Amlodipine, 299, 724
 electrophysiologic effects, 653-657
 second generation, 356
 vs. diltiazem, 653-657
 vs. nifedipine, 657
 vs. verapamil, 656, 657
 Amrinone, in heart failure reassessment of, 764
 Amrinone Multicenter Trial Group, 764
 Anatomy of the heart, book review, 517
 Aneurysmectomy, 117
 Aneurysm formation, infarct expansion and, 455
 Angina pectoris, 299
 alcoholic cardiomyopathy presentation, 89
 at rest, 719, 720
 endothelin changes and myocardial ischemia, 589-596
 isradipine duration of effects during twice daily therapy, 199-209
 nicorandil as therapy, 144
 nisoldipine in DEFIANT study, 408, 409, 410, 414
 nitrate tolerance mechanisms, 489, 490, 491, 494
 organic nitrate ester use, 701-702
 transdermal nitrates for, 625-630
 unstable, 719-724
 Angiogenesis, heparin, potential to promote in canine and human models, 332-333
 Angiotensin
 aggravating pressure-induced tendency for cardiac hypertrophy, 17
 endothelial damage, 444
 Angiotensin I, endothelial control in heart failure, 437, 444
 Angiotensin II, 603, 739
 congestive heart failure and, 686, 687, 689

- endothelial control in heart failure, 437, 444
- escape from control of ACE inhibition, pathophysiologic role in LV dysfunction, 313-315
- hypertension treatment and, 669
- perindoprilat and the transient inward current in rabbit hearts, 647-650
- stimulus to vascular smooth muscle hypertrophy, 80
- vasodilators and dilated cardiomyopathy, 84
- Angiotensin converting enzyme, regression of LV hypertrophy with quinapril, 735-739
- Angiotensin converting enzyme inhibitors, 738, 739
- additions for heart failure management, 115-116
- additions for high risk post MI patient, 116-117
- AIRE, ISIS-4, and GISSI-3 trials, 469-471
- coronary artery disease and, 112
- duration of action, 434
- first dose hypotension, 434
- for alcoholic cardiomyopathy, 92, 93
- for dilated cardiomyopathy, 83, 84-85, 87
- for ischemic LV dysfunction, 313-315
- for prevention of heart failure, 112
- hypertension trials and, 668, 669
- in congestive heart failure asymptomatic patients, 80
- in congestive heart failure symptomatic patients, 79-80
- infarct-related heart failure, 433-436
- in heart failure, 111-112
- in heart failure, and neurohormonal mechanisms, 685-691
- initiation after myocardial infarction, 436
- LV dysfunction after myocardial infarction and prognosis, 319, 324
- mechanisms of action in congestive heart failure patients, 79
- modifying proliferation of fibrous matrix, 305, 310
- monotherapy to reduce LVH, 559
- nitrate tolerance, 496-497
- normalizing peripheral factors from congestive heart failure, 75, 79-80
- perindoprilat and the transient inward current in rabbit hearts, 647-650
- quinapril hydrochloride effects on renal function in hypertensive patients with renal dysfunction, 271-275
- role in postinfarct left ventricular dysfunction, better than nifedipine, 299, 300, 302
- sulphydryl group, 433
- vs. moxonidine, 49, 52-54
- when to start and in whom, 111-113
- with diuretics, 126
- with simedan, 263
- Animal studies, fish oil effects on atherogenesis and its risk factors, 179-188
- Anipamil
- second generation, 356
- vs. verapamil, 567
- ANOVA F test, isradipine studied in angina pectoris, 201-202
- Antabuse, for alcohol cardiomyopathy, questionable efficacy, 90
- Antiangina agents, isosorbide 5-mononitrate as, 693
- Antiarrhythmic drugs
- amiodarone not recommended as first-line treatment for atrial fibrillation, 773-774
- for dilated cardiomyopathy, 85
- with ACE inhibition for high risk post MI patient, 116
- Anticoagulants, with ACE inhibition for high risk post MI patients, 117
- Anticholinergic effect, disopyramide phosphate, for paroxysmal supraventricular tachycardia, 277
- Antihypertensives
- guidelines on initiation, 666, 667, 670
- history, development, and future trends, 7-9
- imidazoline I₁ receptors in the RVLM mediating blood pressure reduction, 21-26
- moxonidine as a selective I₁-imidazoline agonist, 27-38
- Antischemics, epanolol treatment for coronary artery disease, 211-218
- Antioxidant, guggulipid decreasing of blood lipoproteins, 659-664
- Aortic input impedance, to determine afterload reduction for hydralazine administration, 161-166
- Arginine vasopressin
- congestive heart failure, contribution to, 76, 78
- heart failure and, 685, 686, 688
- Arrhythmias
- alcoholic cardiomyopathy, 89, 90
- interactions and risks after infarction, 335, 336, 337, 338, 339, 340
- left ventricular hypertrophy at risk factor, 16-17
- malignant, interactions and risks after infarction, 335, 341
- management in hypertrophic cardiomyopathy, 95-99
- perindoprilat and the transient inward current in rabbit hearts, 647-650
- prevalence before and after DAVIT I trial, 150
- prevalence before and after DAVIT II trial, 148-149, 150
- senescent heart overloading and failure, 581, 583, 585
- Arteriovenous fistula, cardiac hypertrophy, 308
- Aspirin
- after infarction for therapy, 113
- interaction with, 111-112
- interaction with alcohol, for alcoholic cardiomyopathy, 93
- unstable angina and, 719, 720, 721, 722, 724
- with ACE inhibition for high risk post MI patients, 117
- Asymptomatic Cardiac Ischemia Pilot Study (ACIP), 732
- Atenolol, 299
- vs. epanolol, 216
- vs. moxonidine, 49, 54, 57
- Atherosclerotic coronary artery disease, diabetic cardiomyopathy, 66
- Atherosclerosis, 11
- acceleration in patients with borderline hypertension, 15
- diet-induced, in monkeys, 180, 181, 183, 184
- diltiazem inhibitions induced by insulin, IGF-I, and PDGF in vascular smooth muscle cells, 861-869
- fish oil effect, and risk factors, 179-188
- guggulipids and, 659
- Athletes, cardiac hypertrophy, 308
- ATLAS study, lisinopril for heart failure, 112
- ATPase, 709, 710
- Atrial fibrillation
- alcoholic cardiomyopathy, 90, 92
- amiodarone not recommended as first-line treatment for atrial fibrillation, 773-774
- amiodarone therapy for, 769-771
- arrhythmia management in hypertrophic cardiomyopathy, 95-99
- LV hypertrophy as predictor and hypertension, 557
- Atrial natriuretic factor (ANF), heart failure and, 685, 686, 687, 688
- Atrial natriuretic peptide (ANP) action mechanisms, 706, 709
- atria stretch and heart failure definition, 449, 451
- congestive heart failure role, 76
- heart failure and, 685, 686, 688
- neurohormones in LV dysfunction, 313-315
- Atrial pacing stress tests (APSI I and II), epanolol treatment for coronary artery disease, 211-218
- Atropine, effect on senescent heart, 584
- Australian National Health and Medical Research Council study, 426
- Autonomic nervous control, abnormalities in human hypertension, 11-18
- Autoregulation, J-curve in antihypertensive therapy, 757-759
- Backward failure theory, 448
- Balloon coronary occlusion, endothelial control in heart failure, 442, 723

- Baltimore study, senescent heart, 582
- Basic fibroblast growth factor (bFGF), intracoronary injection in canine heart leading to reduction in infarct size, 331, 333
- Basilen Blue, 706
- Bay-K-8644, 535-536, 567
- Bendroflumazide
action after oral administration, 125
for hypertension, with no glucose intolerance, 124
- Benzothiazepines, mode of action, limitations, efficacy and use, 565, 568, 569-573
- Beta-adrenergic agonists
diabetic rats, diabetic cardiomyopathy, 68
in heart failure, reassessment of, 763-764
- Beta-adrenoceptor blocking drugs, vs. moxonidine, 52-53, 54
- Beta-blockers
adjuvant therapy (captopril, metoprolol, and their combination) for acute myocardial infarction, 875-876
after infarction for therapy, 113
amlodipine vs. diltiazem with coronary artery disease and beta-blocking therapy, 653-657
bisoprolol effects on LV hypertrophy in essential hypertension, 837-842
comments on Robertson's critical review, 673-674
DEFIANT study of LV function and exercise performance after acute myocardial infarction, 414-415
epanolol treatment for coronary artery disease, 211-218
for diastolic heart failure, 111
for dilated cardiomyopathy, 83, 87
for ischemic LV dysfunction, benefits debated, 313, 315
hypertension treatment and, 668, 669
LV dysfunction after myocardial infarction and prognosis, 319, 323-324
no improvement in prognosis with hypertrophic cardiomyopathy, 99
plasma concentration of isosorbide dinitrate and, 697
postinfarct management, 470-471
silent ischemia, 727, 729, 731, 732
unstable angina, 719, 720, 721, 722, 723, 724
vs. moxonidine, 52-53, 54
with ACE inhibition for high risk post MI patient, 116-117
with aspirin for patients with myocardial infarction, 546-547
with nitrates, 619-620
- BDF-6143, 32, 33
abolishing central vasopressor action of moxonidine, 37
- Bethanidine, hypertension treatment guidelines, 668
- Bicarbonate buffer, evaluation of storage solutions on hypothermic injury to immature myocytes, 851-858
- Bisoprolol, effects on LV hypertrophy in essential hypertension, 837-842
- Blacks, salt sensitivity, 427
- Blindness, as result of hypertension, 7
- Blood flow, nicorandil analogue actions in canine heart, 227-233
- Blood pressure
lowering effect on coronary vasodilator reserve in arterial hypertension, 169-170
salt intake and cardiovascular structure, 425-430
- "Border" zones, 455
- Bovine, glyceryl trinitrate injections, 702, 704
- BQ-123, 596
- Bradyarrhythmias, beta-blockers for, 86
- Bradyarrhythmic syncope, hypertrophic cardiomyopathy and, 96
- Bradycardia, 400
- Bradykinin, 440, 441, 603, 607-608
- "Braking phenomenon" of diuretics, 123
- British Hypertension Society, 665, 666, 667, 668
- 8-bromo-cGMP, 707, 709, 710, 711
- Bruce exercise test, 199
- β_1 selectivity, celiprolol vs. nifedipine, effect on plasma lipids, 509-513
- Buccal nitroglycerin, oral nitrates for stable angina pectoris, 611, 613, 619, 730
- Bucuculline, 37
- Bumetanide, action after oral administration, 125
- Butanol-1, 1, 3, 4-tetranitrate, 704
- ^{11}C -acetate, 386
- Calcitonin gene-related peptide, 603
- Calcium
ischemic rise and reperfusion, 535
role in intracellular functions, 353
role in time course of electrical fibrillation threshold during myocardial ischemia and fibrillation, 877-878
- Calcium antagonists
benefit or harm to consequences of coronary artery disease, 301
cardioselectivity of, 353-362
chemical structure of major families, 355
contraindicated for patients with dilated cardiomyopathy, 84
contraindicated in heart failure patients, 121
differences in clinical practice, 565-573
differences in potency between cardiac and vascular tissue, and within vessels, 356
differential hemodynamic effects, 569-573
first and second generation of, 356
hypertension and, 668
intracellular concentration, 709-710
isradipine SRO to reverse left ventricular hypertrophy, 153-160
myocardial stunning and calcium antagonist usefulness, 533-539
prevention of postinfarct systolic left ventricular failure, 302-303
silent ischemia and, 727, 729, 730, 731, 732
tissue selectivity, 568-569
tissue selectivity characterization, 354-358
to prevent stunning before ischemia, 372
to reduce LVH, 559
vs. moxonidine, 52-53
with ACE inhibitors for heart failure management, 116
- Ca^{2+} binding proteins, 465
- Calcium channel antagonist
ischemia role in postinfarction heart failure, based on verapamil use in DAVIT II, 823-827
isradipine duration of effects in angina pectoris, 199-209
- Calcium channel blockers
blocking endothelin actions, 596
diabetic cardiomyopathy role, 69
diltiazem inhibitions induced by insulin, IGF-I, and PDGF in vascular smooth muscle cells, 861-869
LV dysfunction after myocardial infarction and prognosis, 319-324
neurohormones in LV dysfunction, 315
nisoldipine DEFIANT study of LV function and exercise performance after acute myocardial infarction, 407-416
no improvement in prognosis with hypertrophic cardiomyopathy, 99
with nitrates, 619-620
- Calcium channel modulators, cardiac hypertrophy and response to, 358-359
- Calcium channels, classification of, 353-354
- Canadian Hypertension Society, 665, 668
- Ca^{2+} pump, performance of sarcoplasmic reticulum and ventricular failure, 461-467
- Calcium sensitizer, simendan effect, 263
- Calcium $^{2+}$ transport, rats with diabetic cardiomyopathy, 68
- Calmodulin, 465
- Calsequestrin, 465
- CAMIAT study, amiodarone with ACE inhibitors for post MI patient, 116
- Capillary fluid shift, 503-504
- Captopril
adjuvant therapy alone and with metoprolol for acute myocardial infarction, 875-876
congestive heart failure treatment, 688, 689, 690, 691

- effect on glucose and lipid metabolism, 126
and flosequinan for chronic heart failure, 1 year comparative trial, 829-835
for congestive heart failure patients, 79, 80
for ischemic LV dysfunction, 313
hypotension risk reduction, 469, 470, 471
infarct-related heart failure, 433
in nitrate therapy, 493
megatrials of nitrates postinfarction, 644
mortality reduction with LV dysfunction after myocardial infarction, 324
nitrate tolerance, 504
preventing left ventricular enlargement, 456-458
SAVE study, 434-435, 458
vs. lisinopril, 434
vs. moxonidine, 53-54, 57
with ACE inhibitors for dilated cardiomyopathy, 84-85
with furosemide, 124
without potassium supplementation, 126
- Captopril Multicenter Research Group, ACE inhibition clinical efficacy for congestive heart failure patients, 79
- Carbochromen, 607
- Cardiac ACE, ibopramine in chronic myocardial infarction in rats, 245-250
- Cardiac Arrhythmia Suppression Trial (CAST)
antiarrhythmic drugs and dilated cardiomyopathy, 85
Class I antiarrhythmic drug therapy, 116
flecainide or encainide postinfarction therapy and higher mortality, 337
- Cardiac death, with hypertrophic cardiomyopathy, 96-98
- Cardiac failure. *See* Heart failure
- Cardiac hypertrophy
mechanical load effect on protein synthesis in neonatal rat, 251-261
response to calcium channel modulators, 358-359
senescent heart overloading and failure, 581-585
- Cardiac myocyte
evaluation of phosphate, bicarbonate, and Hepes buffered storage solutions on hypothermic injury, 851-858
nicorandil protective effects on hypothermic injury, 129-134
nitroglycerin protective effects on hypothermic injury, 129-134
- Cardiac preservation, nicorandil vs. nitroglycerin effects on hypothermic injury to immature cardiac myocytes, 129-134
- Cardiac relaxation, SDZ 218-135 as positive inotropic agent, 235-243
- Cardiac transplantation
for alcoholic cardiomyopathy with end-stage heart disease, 93
iron overload cardiomyopathy, 108
stunning, 375
- Cardiogenic shock
ischemic RV dysfunction, 401-402
nitrates in myocardial infarction, 640
- Cardiomyopathy
alcoholic, 89-93
diabetic, 65-70
iron overload, 101-109
- Cardioprotection, nisoldipine effect, 365-369
- Cardiovascular drugs, book review, handbook of contemporary drug therapy, 279
- Cardiovascular structure, salt intake and blood pressure effects, 425-430
- Cardioversion, amiodarone and atrial fibrillation, 769-771
- Cardioverter-defibrillator, implantable, evaluation being done for hypertrophic cardiomyopathy, 95, 98
- Carnitine
intervention for diabetic cardiomyopathy, 69
suggested for alcoholic cardiomyopathy, 92
- Carotid body, 28
- CAST study. *See* Cardiac Arrhythmia Suppression Trial
- Catecholamines, 36, 727
clonidine effect, 28, 29
- CD 349, second generation drug, 356
- Celiprolol, vs. nifedipine, effect on plasma lipids, 509-513
- Centrally acting antihypertensives, different types, and central nervous system targets, 787-797
- Central nervous system
autonomic nervous control abnormalities in human hypertension, 11-18
I₁ receptor and imidazoline pharmacology, 21-26
nonspecific depression of function by stimulation of brain α_2 -adrenergic receptors, 27
organic nitrate esters and, 703
- Cerebrovascular damage, 8
- Cerebrovascular disease, 8
- cGMP-dependent protein kinase (cG-Pk), 707, 708, 709, 710
- Chelation therapy, to reverse iron overload in cardiomyopathy, 101, 102, 107-108
- Chelerythrine, blocking antiinfarct effect of ischemic preconditioning in rabbit hearts, 881-882
- Chicken, atherosclerosis and fish oil effect on regression, 186-187
- Children, hydralazine for afterload reduction, ventricular septal defect, 161-166
- Chi-square test, 148
- Chlorthalidone, 125
action after oral administration, 125
reduction in LV mass, 559-560
salt restriction and left ventricular hypertrophy in therapy, 430
- Chlorthiazide
action after oral administration, 125
decreasing intracellular potassium and magnesium concentrations, 126
discovery, 7
diuresis and potency, 123
- Cholelithiasis, 206
- Cholesterol
Dr. Robertson's reply to Dr. Kaplan, 675
hypertension treatment guidelines critique, 665-670
- Choline, intervention for diabetic cardiomyopathy, 69
- Cholinergic receptor density, rats with diabetic cardiomyopathy, 68
- Chord method, 485
- Chromaffin cell membranes, 28-29, 32
- Chronic anemia, cardiac hypertrophy, 308
- Chronic heart failure
atrial natriuretic peptide responsiveness, 76
ibopamine neurohumoral and hemodynamic factors in rats, 245-250
- Chronic lung disease, with ventricular dysfunction, 382
- Cilazapril, for congestive heart failure patients, 79, 89
- Cimetidine, 28, 31-32, 36
- Cinnarizine, first generation drug, 356
- Cirazoline, 28
- Circadian, nitrates in silent ischemia, 727-732
- Cirrhosis
alcoholic cardiomyopathy, 89, 90
endothelin levels, 589
- Classification of calcium antagonists, cardioselectivity of, 353-362
- Clentiazem, second generation drug, 356
- Clinical trial, quinapril hydrochloride effects on renal function in hypertensive patients with renal dysfunction, 271-275
- Clonal neuron-like cell lines, 28
- Clonidine, 28-29, 31, 35, 36, 37-38
dose-dependent fall in mean blood pressure of SHR rats, 35
effect on indices of respiratory activity, 38
effect on mean atrial blood pressure, 21, 22, 23, 24, 25
high incidence of side effects, 27-28
hypertension treatment guidelines, 668
sedative effect, 49, 57
vs. moxonidine, 52-53, 54, 55-57
withdrawal side effects, 55

- Clonidine displacing substance (CDS), 21, 24, 25, 29
- CMH test, 202
- Cochran-Mantel-Haenszel (CMH) chi-squared test, isradipine studied in angina pectoris, 201
- Collagens, 306
- Collagen volume fraction, normal heart, 306
- Collateral coronary flow, metoprolol, oral, and thrombolysis in acute infarction in dogs, 479-486
- Combination therapy
 nitrate tolerance, 490, 496-497
 oral nitrates for stable angina, 619-620
- Commiphora mukul, guggulipid decreasing of blood lipoproteins, 659-664
- Comparative antihypertensive studies, moxonidine effect on blood pressure and systemic vascular resistance, 49, 52-57
- Computed tomography scanning, to detect iron levels, 106
- Conduction tissue disease, hypertrophic cardiomyopathy and, 98
- Congestive heart failure (CHF), 8
 alcoholic cardiomyopathy, 90, 92, 93
 captopril decrease of furosemide effects, 124
 diabetic cardiomyopathy, 65, 36, 67
 endothelial control in heart failure, 439
 endothelin levels, 589, 591
 iron overload cardiomyopathy, 106
 neural and humoral adaptations to decreased cardiac output, 75-77
 nitrates in myocardial infarction, 640
 nitrate therapy, 501-505
 nitrate tolerance mechanisms, 489, 490, 491, 492, 496
 nuclear cardiology techniques for assessment, 381
 organic nitrate ester use, 701-702
 pathophysiology of, and dilated cardiomyopathy, 83
 peripheral consequences, 77-79
 peripheral factors in management of, 75-80
 plasma levels of atrial natriuretic peptide, 449, 451
 postinfarction ACE inhibitor therapy decrease in cardiac mortality, 335, 339
 post-myocardial infarction ventricular remodeling, 453-459
 quinaprilat therapy pharmacokinetic profile, 274
 as result of hypertension, 7
 simendan's hemodynamic effects in healthy volunteers studied by echocardiographic assessment, 263, 268
 therapy, 79
 use of neurohormonal and ACE inhibitors in, 685-691
- CONSENSUS I and II. *See* Cooperative North Scandinavian Enalapril Survival Study I and II
- Constrictive pericarditis, 400
- Continuous versus intermittent treatment, transdermal nitrates for stable angina, 625-630
- Contractile failure, in early myocardial ischemia: models and mechanisms, 813-820
- Contractility
 alcoholic cardiomyopathy, 89-93
 cardiac myocytes treated with nicorandil or nitroglycerin, 130
 simendan effect in healthy volunteers, 263, 267-268
- Cook County Heart Disease Registry, 553
- Cooperative North Scandinavian Enalapril Survival Study I (CONSENSUS I), 314, 315
 use of neurohormonal mechanisms and ACE inhibitors in heart failure, 686-687, 688, 689
- Cooperative North Scandinavian Enalapril Survival Study II (CONSENSUS II), 433, 434-435, 436, 458
 ACE inhibitors' use after infarction studied, 113, 685, 690
 ACE inhibitor trials, 469-471
 LV dysfunction after myocardial infarction and prognosis, 324
- Cornell Medical Center, left ventricular hypertrophy, 427
- Coronary angiography, 719
 alpha-1 receptors in Syndrome X, 221-225
 for dilated cardiomyopathy, 83
- Coronary angioplasty, endothelin-1 levels during, 775-776
- Coronary artery bypass graft (CABG) surgery, 729-730
- Coronary artery diameter (CoD), nicorandil, nitroglycerin, and cromakalim vasodilatory action mechanism in dogs, 137-144
- Coronary artery disease (CAD), 8, 719
 amlodipine vs. diltiazem electrophysiologic effects, 653-657
 calcium antagonist differential hemodynamic effects, 569-573
 consequences, 301
 epanolol IV therapy, systemic and anti-ischemic effects, 211-218
 guggulipids in prevention of, 659, 663
 incidence, 7
 J-curve in antihypertensive therapy, 757-759
 left ventricular hypertrophy significance in cardiovascular morbidity and mortality, 549-554
 silent ischemia and, 727, 728, 729, 730, 731
- Coronary artery spasm, before LV dysfunction, 373
- Coronary blood flow (CBF), nicorandil's vasodilatory action mechanism in dogs, 137-144
- Coronary Drug Project, 553
- Coronary flow reserve, J-curve in antihypertensive therapy, 757-759
- Coronary heart disease, sympathetic overactivity, 15, 18
- Coronary reserve, alpha-1 receptors in syndrome X, 221-225
- Coronary steal syndrome, 119, 566
- Coronary thrombosis, sympathetic overactivity, 16
- Coronary vascular bed, nicorandil analogue action in canine heart, 227-233
- Coronary vascular resistance, epanolol in coronary artery disease, 213, 214-215, 216, 217
- Coronary vasodilation, nisoldipine cardioprotective effect in rabbit hearts, 365-369
- Coronary vasodilator, blood pressure lowering effect on reserve in arterial hypertension, 169-170
- Corticosteroids, 604
- Corynanthine, blocking clonidine antihypertensive action, 37
- Cotton wool spots, 7
- Counts method, 382
- Cows, clonidine binding in bovine brain, 28, 29
- ¹⁴C-phenylalanine, incorporation rate, cultured myocardial cells and cyclic mechanical loading, 252-255, 256, 261
- "Creep", 310
- Cromakalim
 coronary effects with and without glibenclamide in dogs, 137, 138-142
 cytoprotection by nicorandil, 134
- Cultured myocardial cells, mechanical load effect on protein synthesis in neonatal rats, 251-261
- Cyclic mechanical load, effect on protein synthesis and morphological changes in cultured myocardial cells from neonatal rat, 251-261
- Cyclic GMP, mechanisms of action of nitrates, 701-711
- Cyclic nucleotides, 29
- Cytochrome P-450, 701
 action mechanisms, 701, 705, 706, 710
 oxidase, 603-604
- Danish Pilot Study, 543, 544
- Danish Verapamil Infarction Trial I (DAVIT I), 543-547
- Danish Verapamil Infarction Trial II (DAVIT-II), 147-151, 302-303, 408, 543-547, 823-827
- DAVIT I and II. *See* Danish Verapamil Infarction Trial I and II
- Death, ischemia role in postinfarction heart failure, based on verapamil use in DAVIT II, 823-827

- Debrisoquine, hypertension treatment guidelines, 668
- Deferoxamine, therapy for iron overload cardiomyopathy, 102, 107
- DEFIANT studies, 299
- LV function and exercise performance after acute myocardial infarction, 407-416
- DEFIANT I study, 408, 415-416
- limitations, 416
- DEFIANT II study, 407
- Delapril, for dilated cardiomyopathy, 84
- Denmark, fish oil effect on atherogenesis studied, 179-188
- Devereux's formula, 154
- Diabetes, adult-onset, 27
- Diabetes mellitus
- cardiomyopathy, 65-70
- glucose intolerance and diuretic use, 124
- Diabetic cardiomyopathy, 65-70
- cardiac catheterization, 66
- epidemiology, 65
- experimental studies, 67-69
- noninvasive studies, 66-67
- pathology, 65-66
- Diabetic retinopathy, diabetic cardiomyopathy, 66, 67
- Diastole, 570
- senescent heart, 582
- Diastolic dysfunction
- acute ischemic syndrome, 297-303
- alcoholic cardiomyopathy, 89-93
- diabetic cardiomyopathy, 66, 67
- iron overload cardiomyopathy, 101, 104-105, 106
- nisoldipine effect on LV function and exercise performance after acute myocardial infarction, 407-416
- Diastolic function
- isradipine SRO effect on left ventricular hypertrophy, 155, 160
- ranolazine with ischemic heart disease, 741-746
- Diastolic pressure index, 481, 484, 486
- Diastolic pressure time index, 484, 486
- Dichloroacetate, intervention for diabetic cardiomyopathy, 69
- Diet
- guggulipid decreasing of blood lipoproteins, 659-664
- use in hypercholesterolemia management, 659, 660, 661, 662
- Diethylamiloride, diminishing reperfusion arrhythmias, 536
- Digitalis, 377
- for alcoholic cardiomyopathy, 92, 93
- to relieve congestive symptoms of dilated cardiomyopathy, 83-84, 85, 87
- Digitalis glycosides, in heart failure, reassessment of, 762-763
- Digoxin
- arrhythmogenic potentials in dilated cardiomyopathy patients, 83
- congestive heart failure treatment, 688
- effect on endothelial control in heart failure, 439
- effect on left ventricular size and function, 458
- for hypertrophic cardiomyopathy, 98
- for ventricular septal defect, 161
- in heart failure, 761-766
- interaction with alcohol, for alcoholic cardiomyopathy, 93
- therapy for congestive heart failure, 79
- with ACE inhibitors for heart failure management, 115-116
- with hydralazine and isosorbide dinitrate, 120
- Dihydropyridines, 354, 719, 724
- distribution pattern of receptors, 360, 361
- for infarct related heart failure, 120
- for ischemic LV dysfunction, 313
- mode of action, limitations, efficacy and use, 565, 567, 568, 569-573
- vascular selectivity of, 356-358
- vs. moxonidine, 49, 52-53
- Dilated cardiomyopathy (DCM)
- alcoholism and, 89, 90
- therapeutic management of, 83-87
- Diltiazem, 719, 724
- binding sites, 565, 566, 567, 568
- cardiovascular ratio, 356
- contraindicated for post myocardial infarction heart failure, 116
- electrophysiologic effects, 653-657
- first generation drug, 356
- hemodynamic effects, 569-573
- MDPIT study, 408
- no inhibitory action, 357-358
- preischemic effect on stunning or post-ischemic left ventricular mechanical dysfunction, 538
- protective effect in experimental diabetic cardiomyopathy, 65, 69
- reducing left ventricular mass, 554
- vs. amlodipine, 653-657
- vs. beta blockers in myocardial infarction, 547
- Diltiazem SR, efficacy and tolerability as monotherapy in hypertension, 845-848
- Dimaprit, 29, 36
- 1,2-dimethyl-3-hydroxypyrid-4-one (L1), for iron overload cardiomyopathy, 107, 108
- Dipyridamole, 607, 707
- vs. doxazosin, 224-225
- with doxazosin treatment in Syndrome X, 221-225
- Dipyridamole test, 384
- Dipyridole, action mechanisms, 703
- Disopyramide
- for hypertrophic cardiomyopathy, 98
- interaction with alcohol for alcoholic cardiomyopathy, 93
- transient sexual dysfunction observed during antiarrhythmic therapy, 277
- Disulfiram, for alcoholic cardiomyopathy, questionable efficacy, 90
- Disuse atrophy, 300
- Diuretics
- choice of, 123-126
- comments on Robertson's critical review, 673-674
- congestive heart failure and, 686, 688
- effect on median plasma norepinephrine levels in heart failure patients, 314
- for correcting volume overload of alcoholic cardiomyopathy, 92, 93
- for ventricular septal defect, 161
- increasing ventricular ectopy, 561
- LV dysfunction related to electrical instability, 337
- nitrate tolerance, 496-497
- no antiarrhythmic effect, 561
- parenteral therapy, 125
- postinfarct management, 471
- predictor of neurohumoral activation, 456
- tailored therapy for advanced heart failure, 85
- therapy for congestive heart failure, 79
- to reduce LVH, 559-560
- to relieve congestive symptoms of dilated cardiomyopathy, 83-84, 87
- as treatment of hypertensive, 668, 669
- vs. moxonidine, 52-53, 54
- with ACE inhibitors for heart failure, 111, 112, 115
- with hydralazine and isosorbide dinitrate, 120
- with verapamil in DAVIT-II study, 302
- DNA synthesis, inhibited by diltiazem in vascular smooth muscle cells, 861-869
- Dobutamine, ischemic right ventricular dysfunction, 393
- Dobutamine stress test, 384
- Docosahexaenoic acid, 179-188
- Docosapentaenoic acid, 179-188
- Dogs
- diabetic cardiomyopathy studies, 67
- fish oil effect on atherogenesis in, 180, 186-187
- hemodynamic response to hindquarter compression with/wo phenoxymethylamine, 14-15
- metoprolol and thrombolysis in acute infarction, 479-486
- nicorandil analogue action in canine heart, 227-233
- nicorandil's vasodilatory action mechanism on coronary circulation, 137-144
- Dopamine
- dysuria as side effect, 515

- ischemic right ventricular dysfunction, 393
- Doppler Flow and Echocardiography in Functional Cardiac Insufficiency: Assessment of Nisoldipine Therapy. *See* DEFIANT study
- Doxazosin
- Syndrome X and adrenergically mediated coronary vasoconstriction, 221-225
- vs. dipyridamole, 224-225
- vs. nitrendipine, 473-476
- Doxorubicin, to inhibit calcium release from sarcoplasmic reticulum and lessen stunning, 536
- DPI 201-106
- chemical structure, 236
- vs. SDZ 218-135, 235-236, 243
- Drug treatment, hypertension treatment guidelines critique, 665-670
- Drug withdrawal, quinapril hydrochloride effects on renal function in hypertensive patients, 273-274, 275
- Dunnett's test, nicorandil analogue action, 229
- Dylipoproteinemia, 8
- Dyslipidemia, 11, 15
- Dysuria, side effect of dopamine, 515
- Early afterdepolarizations, after infarction, risk factors, 336, 338
- ECHO evaluation, alcoholic cardiomyopathy, 93
- Echocardiography
- DEFIANT study of nisoldipine post-myocardial infarction, 409-410, 411-412, 414, 416
- effect of blood pressure lowering on coronary vasodilator reserve in arterial hypertension, 169
- nicardipine slow release modifications in peripheral hemodynamics and left ventricular function in hypertensives, 167-168
- simendan hemodynamic effects in healthy volunteers, 263-268
- to study isradipine SRO effectiveness in treating hypertension with left ventricular hypertrophy, 153-160
- two-dimensional, to detect iron levels, 106
- Efaroxan, 24, 28, 33, 34-35, 36
- Efficacy
- felodipine ER and diltiazem SR as monotherapy for hypertension, 845-848
- nitrates in silent ischemia, 727-732
- Effort angina
- acadesine effect, in chronic stable angina, 193-196
- calcium antagonists for management of, 565-566
- heparin effect on ventricular dysfunction, 327
- ischemic LV dysfunction, 297
- E-guggulsterone, 659, 663, 664
- Eicosapentaenoic acid, 179-188
- Ejection fraction
- after myocardial infarction, 320
- fall resulting from treatment with vasodilators other than ACE inhibitors for infarct related heart failure, 119-121
- Elastin, 306
- Elderly
- ACE inhibitors in heart failure, 111
- hyponatremia and thiazides, 125
- quinaprilat therapy pharmacokinetic profile, 275
- salt sensitivity, 427
- senescent heart overloading and failure, 581-585
- treatment of hypertension in, 666, 667, 669
- Electrical fibrillation threshold (EFT), 877-878
- Electrical instability, after myocardial infarction, risk stratification, 335-341
- Electrophysiology, amlodipine vs. diltiazem in patients with coronary artery disease and beta-blocking therapy, 653-657
- EMD 60263, 465
- EMIAT study, amiodarone with ACE inhibitors for post MI patient, 116
- EMPAR trial, 186
- Enalapril
- counteracted by aspirin, 117
- for alcoholic cardiomyopathy, 92
- for congestive heart failure patients, 79
- for heart failure, 112
- for heart failure in SOLVD study, 112
- for ischemic LV dysfunction, 313-314, 315
- hypotension risk, 469, 470
- infarct-related heart failure, 433, 434-435
- neurohormonal mechanisms and ACE inhibitors in heart failure, 685-691
- nitrate tolerance, 504, 505
- reduction of left ventricular end-diastolic volumes, 383
- with ACE inhibitors for dilated cardiomyopathy, 84-85
- Encainide
- harmful to post MI patients given ACE inhibitors, 116
- postinfarction therapy and higher mortality, 337
- Encephalopathy, hypertensive, 7
- Endocardin, 441
- Endocardin factors, 440-441
- Endocardium, role of, 437
- Endorphins, silent ischemia and, 728
- Endothelial cell muscarinic receptor defect, 439
- Endothelin, 601
- effect on myocardial contractility, 594
- endothelial control in heart failure, 437-444
- major effects on the heart: coronary tone, contractility, and electrophysiology, 592-594, 595
- myocardial ischemia and, 589-596
- Endothelin antagonists, 596
- Endothelin-I, levels during coronary angioplasty, 775-776
- Endothelium, dysfunction and acute myocardial infarction, 444
- endothelial dysfunction, 443-444
- role of, 437
- stimuli for release from cells, 439
- Endothelium-derived constricting factors, endothelial control in heart failure, 438, 439
- Endothelium-derived hyperpolarizing factor, 438
- Endothelium derived nitric oxide (EDNO), exogenous and endogenous coronary nitric oxide, 601-608
- Endothelium-derived relaxation factors (EDRF)
- endothelial control in heart failure, 438, 440-441
- nitrates in congestive heart failure, 505
- nitrates in myocardial infarction, 636
- production impaired in congestive heart failure patients, 77-78, 80
- End-stage renal disease, as result of hypertension, 7
- End-stage heart disease, alcoholic cardiomyopathy and cardiac transplantation, 93
- End-systolic meridional wall stress (ESWS), 162-163
- Eosinophilia, beta-blocker induction of, in dilated cardiomyopathy, 84
- Enoximone, in heart failure, reassessment of, 765
- Enoximone Multicenter Trial Group, 765
- Epanolol
- systemic antiischemic effects in coronary artery disease, 211-218
- vs. atenolol, 216
- vs. pindolol, 216
- Epinephrine, 28, 29, 32, 33
- Epinine, effect with ibopamine on PNE levels in rats with chronic myocardial infarction, 246-247, 248
- Equilibrium Binding Data Analysis (EBDA) program, 30
- Ergot alkaloids, 37
- Erythritol tetranitrate, 704
- Eskimos, fish oil and prevention and regression of atherosclerosis, 179-188
- Essential hypertension, 738
- doxazosin vs. nitrendipine as monotherapy, 473-476
- evidence of increased adrenergic activity in early forms, 8

- therapy tailored to the individual patient, 8
- VA studies of antihypertensive treatment, 7
- Esterases, 701
- action mechanisms, 710
- Ethacrynic acid (ECA), 705, 706
- action after oral administration, 125
- Ethanol, 37
- chronic consumption and alcoholic cardiomyopathy, 89, 90, 93
- Etomoxir, intervention for diabetic cardiomyopathy, 69
- European Working Party on high blood pressure in the elderly (EWPHE) trial, 669
- Exercise
- ejection fraction with diabetic cardiomyopathy, 67
 - hypertension and, 669
 - inducing hypotension in hypertrophic cardiomyopathy patients, 97-98
 - isometric, response in patients recovering from myocardial infarction, 14, 15
 - isradipine duration of effects in angina pectoris, 199-209
 - moxonidine effect on renin angiotensin II, and aldosterone levels, 50
 - nitrate tolerance, 612, 614, 615-616, 617, 618
 - oral nitrates for stable angina, 611-620
 - residual ischemia and ventricular arrhythmia presence, 336-337, 338, 339
 - salt sensitivity, 429
 - senescent heart, 582-583
- Exercise capacity
- heparin effect on induced myocardial ischemia and ventricular dysfunction studied, 327-333
 - nitrates in congestive heart failure, 504-505
- Exercise-induced angina, before LV dysfunction, 373
- Exercise-induced ischemia
- acadesine effect in chronic stable angina, 193-196
 - ribose effect, 195
- Exercise testing, DEFIANT-I study of LV function and exercise performance after acute myocardial infarction, 407, 410, 414, 416
- Exercise tolerance
- improved by vasodilators after infarct related heart failure, 119-121
 - iron overload cardiomyopathy, 102
- Exercise tolerance tests (ETT), isradipine in angina pectoris, 201-202, 203-205, 206-207, 208-209
- Exercise training, congestive heart failure therapy, 75, 80
- F-18 deoxyglucose activity, 385
- Falipamil, second generation drug, 356
- Fatty acids (n-3), effects on cell functions and blood constituents possibly involved in atherosclerosis, 181
- ¹⁸FDG, 387
- Felines, organic nitrate esters used in papillary muscles, 703
- Felodipine, 299
- second generation drug, 356
- Felodipine ER, efficacy and tolerability as monotherapy in hypertension, 845-848
- Fenton reaction, 105
- Ferritin, role in iron overload cardiomyopathy, 104, 105, 106, 108
- Fibronectine, 306
- Fibrosis
- diabetic cardiomyopathy, 65, 66
 - senescent heart overloading and failure, 581, 583, 585
- Fibrous matrix
- proliferation modified by ACE inhibition, 305-311
 - schematic representation of organization, 307
 - synthesis of Type I collagen, LV dysfunction in ischemic heart disease, 305-311
- Fisher's exact test, 148
- two-sided, 202
- Fish oil
- effect on prevention and regression of atherosclerosis, 179-188
 - studies on effect of atherogenesis in the hypercholesterolemic rabbit, 180, 181-183, 185, 187
 - studies on effect on models of accelerated atherogenesis in pigs, 180-181, 183, 186-187
 - vessel graft atherogenesis, animal studies on fish oil effect, 185
- Flavin adenine dinucleotide (FAD), 603
- Flavin adenine mononucleotide (FMN), 603
- Flaxedil, 30
- Flecainide
- harmful to post MI patients given ACE inhibitors, 116
 - postinfarction therapy and higher mortality, 337
- Flosequinan
- and captopril for chronic heart failure, 1 year comparative trial, 829-835
 - Class III and Class IV heart failure, adverse effect, 120
 - with ACE inhibitors for heart failure management, 116
- Fluid volume homeostasis, salt intake effect, 426-427, 429-430
- Flunarizine, second generation drug, 356
- Forskolin, 536
- FORT trial, 186
- Forward failure, due to renal retention, 448
- FR139317, 596
- Fraction A of guggul, 663
- Framingham Cohort, left ventricular hypertrophy, 427
- Framingham study, 549, 550, 553
- diabetic cardiomyopathy incidence, 65, 66
 - sudden death incidence and myocardial infarction, 336
- Frank-Starling curve, 640
- Frank-Starling mechanism, 454
- senescent heart, 582
- Free radicals
- guggulipid's effect on, 663
 - relation with calcium overload, 536
 - stunning, 534
- Fructose, intervention for diabetic cardiomyopathy, 69
- Furosemide, ischemic RV dysfunction, 403
- Funnel-web spider toxin (FTX), 354
- Furosemide
- action after oral administration, 125
 - diuresis and potency, 123
 - intravenous treatment, 126
 - parenteral therapy, 125
 - with captopril, 124
 - with quinapril, 272
- Gallopamil, 299
- second generation drug, 356
 - vs. verapamil, 567
- Gas chromatographic method with electron capture detection (GC-ECD), measuring glyceryl trinitrates in plasma, 693-694
- Gas chromatography-mass spectrometry (GC-MS), measuring glyceryl trinitrates in plasma, 693-694
- Gated equilibrium imaging, 381-382
- Geometric method, 382
- GISSI-3 study, 644-645
- ACE inhibitor trials, 469-471
- Glibenclamide
- antagonist for nicorandil analogue action in canine heart and pK_B values, 227-233
 - blockade of IK_{ATP} by 5-hydroxydecanoate, 749-755
 - hemodynamic and coronary effects in dogs, 138
 - nicorandil analogue action in canine heart, 227-233
 - suppressing nicorandil effect on coronary blood flow, 137-144
- Global ischemia, nisoldipine cardioprotective effect in rabbit hearts, 365-369
- Glomerular filtration, diuretic use, 124
- Glomerular filtration rate (GFR)
- captopril effect on furosemide, 124
 - preservation and congestive heart failure, 76
 - regression of LV hypertrophy with quinapril, 735-739

- Glucose intolerance, diuretic effects and conflicting reports on, 123, 124, 125, 126
- Glucose tolerance, impaired, 8
- Glutathione, 705
- Glutathione S-transferase (GST), 701, 705, 706, 710
- Glyceraldehyde-3-phosphate dehydrogenase (GAPDH), 465, 466
- 1,2-glyceryl dinitrate (1,2-GDN)
action mechanisms, 705, 706
chemical structure of, 702
- 1,3-glyceryl dinitrate (1,3-GDN)
action mechanisms, 705, 706
chemical structure of, 702
- Glyceryl dinitrates
action mechanisms, 705
clinical pharmacokinetics of, 693-697
- Glyceryl mononitrates, 693-697
- Glyceryl trinitrate (GTN), *see also* Nitroglycerin
chemical structure of, 702
clinical pharmacokinetics of, 693-697
mechanisms of action, 701-711
- Gpp(NH)p (guanine nucleotide regulatory protein), 32-33
- G-protein, 28-29
- Greenland, fish oil and the prevention and regression of atherosclerosis, 179-188
- Gregg phenomenon, 441
- Guanabenz, 23, 24, 27, 35
- Guanethidine
discovery, 7
hypertension treatment guidelines, 668
- Guanfacine, 23, 24, 27, 35, 38
- Guanidines, 28
- Guanine nucleotide, 32
- Guanine nucleotide binding regulatory proteins (G proteins), 27
- Guanosine 5'-triphosphate, nitrate: action mechanisms, 706
- Guanylate cyclase, 706, 707, 708, 710, 711
- Guggulipid
decreasing of blood lipoproteins, 659-664
diet study and, 661
- Guggulsterols, 663, 664
- Guggulsterones, 659, 663, 664
- Guglip, 660
- Guinea-pig, organic nitrate esters use in cardiac muscles, 703
- GUSTO study, streptokinase and hypotension risk, 469, 471
- Haber-Weiss reaction, 105
- [³H] clonidine, 28, 29-30, 36
- HDFP trial, 673
Dr. Robertson's reply to Dr. Kaplan, 675
- Heart, endothelin and myocardial ischemia, 589-596
- Heart anatomy, book review, 517
- Heart attack, as result of hypertension, 7
- Heart failure
ACE inhibitor choice, 433-436
additions to ACE inhibitors for post-infarct MI patients, 115-117
biochemical basis, 450-451
definition of, 447-451
digoxin and other low-dose positive inotropes reassessed, 761-766
endothelial control of vascular and myocardial function, 437-444
flosequinan and captopril 1 year comparative trial, 829-835
high output failure, 448
hypertension and, 450
iron overload cardiomyopathies, 101-109
ischemia role in postinfarction heart failure, based on verapamil use in DAVIT II, 823-827
neurohormonal mechanisms and ACE inhibitors, 685-691
neurohumoral influences, 448-449
sarcotubular Ca²⁺ pumps and ventricular failure, 461-467
senescent heart overloading and failure, 581-585
- Heart/liver transplantation, iron overload cardiomyopathy, 108
- Heart rate, verapamil effects on arrhythmias following acute myocardial infarction, 147-151
- Heart rate variability (HRV), 690
- Heart transplantation, maximum vasodilation in treatment of heart failure and DCM, 85-86, 87
- Heat shock proteins (HSPs), 465
- Hematocrit, high value as predictor of coronary mortality, 16
- Hemochromatosis
definition, 101
iron overload cardiomyopathy, 101-109
- Hemodialysis, iron overload, 108
- Hemodynamics
autonomic nervous control abnormalities in human hypertension, 14-18
calcium antagonist differential effects, 569-573
epanolol treatment for coronary artery disease, 211-218
hydralazine for afterload reduction in children with ventricular septal defect, 162, 163, 164
ibopamine in chronic myocardial infarction in rats, 245-250
isradipine in angina pectoris, exercise tolerance testing, 201-209
metoprolol, oral, and thrombolysis in acute infarction, 479, 480-486
moxonidine production of acute fall of blood pressure and systemic vascular resistance, 49, 51
moxonidine vs. nifedipine, 49
- nisoldipine (IV) after myocardial infarction, 347-349, 350
- nitrates in congestive heart failure, 501-503
- nitrates in myocardial infarction, 639, 640
- peripheral factors in management, 75-80
- right ventricular dysfunction, 397
- SDZ 218-135 as positive inotropic agent in rabbit heart, 241-242, 243
- SDZ 218-135 as positive inotropic agent in rat heart, 237, 239-240, 243
- senescent heart, 582
- sildenafil, cardiotonic drug with echocardiographic assessment, 263-268
- Hemorrhages, 7
- Hemosiderosis, definition, 101
- Heparin
blocking endothelin actions, 596
for myocardial ischemia and ventricular dysfunction, 327-333
intravenous (IV) for unstable angina, 719, 720, 721, 722, 723, 724
- Heparin-Sepharose binding growth factor, 261
- Hepatic cirrhosis, not associated with alcoholic cardiomyopathy, 89, 90
- Hepes buffer, evaluation of storage solutions on hypothermic injury to immature myocytes, 851-858
- Hibernating myocardium, *see also* Hibernation
neurohormones in LV dysfunction, 315
ranolazine effect on LV regional diastolic function with ischemic heart disease, 741-746
zones, interaction between LV dysfunction and ischemia, 338
- Hibernation
characteristics, 298
compared to stunning, 372
compensated mild ischemia with mechanical dysfunction, 300
ischemic right ventricular dysfunction, 396
LV dysfunction after myocardial infarction and prognosis, 319-320, 322, 324
left ventricular dysfunction in patients, 371-377
vs. repetitive stunning vs. preconditioning, 300-301
- [³H] idazoxan, 28, 29
- High-density lipoprotein, 509, 510, 511-512, 513
- High density lipoprotein cholesterol (HDL)
guggulipids and, 659
guggulipids decreasing of blood lipoproteins, 659-664
- Higher frequency (HF) rhythm, 690
- High risk hypertensives, J-curve in antihypertensive therapy, 757-759

- High-voltage activated (HVA) channels, 353-354
- Histamine, 29, 31, 36
- Histamine H_2 receptors, 36
- Histaminergic agents, 29
- [3H] moxonidine, 29-30, 31-33, 36
- Holiday heart syndrome, alcoholic cardiomyopathy, 90
- Holter monitoring
- silent ischemia, 731, 732
 - verapamil effect on arrhythmias and heart rate after acute myocardial infarction, 147-151
- Hope's backward failure theory, 450
- [3H] *p*-aminoclonidine, 30, 36
- HSP-27, 465, 466
- HSP-70, 466
- 3H -thymidine, incorporation rate, FCS effect in cultured myocardial cells, 253, 256, 261
- Hydralazine
- discovery, 7
 - intervention for diabetic cardiomyopathy, 69
 - favorable hemodynamic effect on infarct related heart failure, 119-121
 - for ventricular septal defect in children, 161-166
 - hypertension treatment guidelines, 668
 - nitrates in congestive heart failure, 501
 - no effect on LV mass, 560
 - no attenuation of ventricular enlargement, 457
 - with isosorbide dinitrate for dilated cardiomyopathy, 85
 - with isosorbide dinitrate in congestive heart failure, 689
- Hydralazine/isosorbide dinitrate, combination use in congestive heart failure, 689
- Hydrochlorothiazide
- action after oral administration, 125
 - effect on glucose and lipid metabolism, 126
 - high ceiling effect, 124
 - vs. furosemide, 124
 - vs. moxonidine, 49, 54, 55, 57
 - with amiloride, 126
 - with moxonidine, 54
- 5-Hydroxydecanoate, blockade of IK_{ATP} by, 749-755
- 6-Hydroxydopamine (6-OHDA), 38
- Hydroxyls, guggulsterone and, 663
- 5-Hydroxytryptamine (5-HT), 603
- Hyperalgesia, NO-cGMP and, 703
- Hypercholesterolemia
- animal studies with, 181-184
 - guggulipids and, 659, 660, 663
 - interventions in dogs to develop atherogenesis, 180, 186-187
 - vessel graft atherogenesis, 185
 - with endothelial injury in pigs for atherogenesis, 180-181, 183, 186-187
- Hyperemia, not normalized by phentolamine in CHF patients, 77, 79
- Hyperglycemia
- control for prevention of diabetic cardiomyopathy, 65, 66, 69
 - diuretic use, 124
- Hyperinsulinemia, 11, 125
- Hyperkalemia, quinapril therapy and tolerance of, 275
- Hyperplasia, hypertrophy and, 307
- Hyper-reninemia, 8
- Hypertension
- alcoholic cardiomyopathy, 90
 - associated with insulin resistance and diuretic use, 123
 - autonomic nervous control abnormalities, 11-18
 - bisoprolol effects on LV hypertrophy in essential hypertension, 837-842
 - blood pressure lowering effect on coronary vasodilator reserve, 169-170
 - book review, advances in hypertension research, experimental and clinical literature relating to blood pressure control and hypertensive disease, 279
 - cardiac hypertrophy and response to calcium channel modulators, 358-359
 - control for prevention of diabetic cardiomyopathy, 65, 66, 69
 - endothelin levels, 589
 - felodipine ER and diltiazem SR as monotherapy, a double-blind randomized study, 845-848
 - fibrous matrix function, 310-311
 - glomerular, quinapril hydrochloride effects on renal function in chronic renal failure patients, 271-275
 - heart failure and, 450
 - hyperkinetic borderline, 12, 15, 16, 17
 - insulin resistance and diuretics, 125
 - left ventricular hypertrophy presence, 557-561
 - moxonidine as a selective I_1 -imidazoline agonist, 27-38
 - myocardial hypertrophy and, 427-430
 - myocardial hypertrophy and isradipine SRO effectiveness, 153-160
 - neurogenic borderline, 12
 - nicardipine elow release effect on peripheral hemodynamics and left ventricular function, 167-168
 - salt intake and, 425-427
 - therapy history, development, and future trends, 7-9
 - treatment guidelines critique, 665-670
 - white coat, 15
- Hypertensive heart disease, left ventricular hypertrophy presence, 557-561
- Hypertensive organ damage, 666
- Hypertrophy
- adaptive process, sarcotubular Ca^{2+} pumps and ventricular failure, 462, 463-464, 467
 - fibrous matrix function, 305, 306, 307-308, 310, 311
- Hyperuricemia, acadesine effect on exercise-induced myocardial ischemia, 190
- Hypertriglyceridemia, 125
- Hypertrophic cardiomyopathy (HCM), 95-99
- accelerated AV conduction and accessory AV pathways, 96
 - arrhythmia management in, 95-99
 - conducting tissue disease, 96
 - treatment, 98-99
- Hypertrophy by ECHO, alcoholic cardiomyopathy, 93
- Hypokalemia, thiazide group of diuretics, 123, 124-125, 126
- Hyponatremia
- congestive heart failure, correlation of blood levels, 76
 - thiazides in elderly, 125
- Hypotension, risk, and ACE inhibitors, 469-471
- Hypothermic injury
- evaluation of phosphate, bicarbonate and Hepes buffered storage solutions for immature myocytes, 851-858
 - nicorandil vs. nitroglycerin protective effects to cardiac myocytes, 129-134
- Ibopamine
- clinical pharmacokinetics of nitrates, 697
 - neurohumoral and hemodynamic effects in chronic myocardial infarction in rats, 245-250
 - plasma norepinephrine (PNE) level reduction in rats, 245, 246
- Idazoxan, 28, 36, 37
- antagonist for clonidine ability to lower blood pressure, 43
 - blocking response to i.r. moxonidine in rats, 43, 45, 46, 47
 - effect on mean arterial blood pressure, 24
- I_1 -Imidazoline agonists, moxonidine for hypertension control, 27-38
- I_1 -Imidazoline receptors, 29, 36
- I_1 -Imidazoline sites, 28-31, 33, 35, 36, 37
- I_2 -Imidazoline sites, 28
- Imazodan, in heart failure, reassessment of, 765
- Imazodan Research Group, 765
- Imdur (60 mg), 720
- Imidazole binding sites, 28
- Imidazole-4-acetic acid (IAA), 36
- Imidazole receptors, 36
- Imidazoline binding sites, 24
- Imidazoline-guanadinium receptive sites, 28
- Imidazoline preferring receptor, idazoxan blocking of response to i.r. moxonidine, 43, 45, 46-47

- Imidazoline receptors, centrally acting antihypertensive types, and central nervous system targets, 787-797
- Imidazolines, second-generation drug, effects as α_2 -adrenoceptor agonists, 21-26
- Imidazoline sites, 28
- Imidazoline, receptor, moxonidine for hypertension control, 27-38
- Impotence, disopyramide side effect for antiarrhythmic therapy, 277
- Indapamide, action after oral administration, 125
- Indomethacin, inhibiting cyclooxygenase, endothelial control in heart failure, 441
- Inducible isoforms, 604
- Infarct expansion, 454-455
- Infarct related heart failure, treatment with vasodilators other than ACE inhibitors, 119-121
- Infarct size
limitation, metoprolol and thrombolysis in acute infarction in dogs, 479, 480, 484, 486
nitrates in myocardial infarction, 635-645
- Inositol phospholipid metabolism, 29
- Inotropes
with ACE inhibitors for heart failure management, 116
- Inotropic agent, SDZ 218-135 pharmacological actions, 235-243
- Inotropic effects, nicorandil analogue action in canine heart, 227-233
- Insulin, 67, 69
inducing diltiazem inhibitions of DNA synthesis and Ca^{2+} uptake in vascular smooth muscle cells, 861-869
- Insulin resistance, 8
beta-adrenergic stimulation, 15-16
diuretic induced hypokalemia, 123, 124-125
increased sympathetic tone and high insulin levels, 15-16
- Interleukin I, 437
- Intersalt Cooperative Research Group, 426
- Interstitial fibrosis, basis for increased ventricular stiffness in alcoholic cardiomyopathy, 89
- Intestinal fibrosis, 301
- Intoxication, alcoholic cardiomyopathy, 89, 90
- Intracoronary thrombolysis, coronary collaterals and ventricular function, 327-333
- Intravenous epanolol treatment for coronary artery disease, 211-218
- Intravenous nitroglycerin, nitrates in myocardial infarction, 635-645
- Intrinsic sympathomimetic activity (ISA), epanolol in coronary artery disease, 216-218
- [^{125}I]p-ioclonidine ([^{125}I]PIC), 29-30, 33, 34
- I_1 receptor, correlation between affinity for I_1 receptors and blood pressure lowering effects, 26
- Iron
deposition, iron overload cardiomyopathy, 104
effects on the heart, iron overload cardiomyopathy, 104-105
kinetics, iron overload cardiomyopathy, 102-104
overload cardiomyopathies, 101-109
- Iron-deficiency anemia, iron overload cardiomyopathy and, 103
- Iron overload cardiomyopathy, 101-109
clinical presentation, 102
definition, 101
diagnosis, 105-106
future directions of investigation, 108-109
incidence, 101-102
pathophysiology, 102-105
predictors of prognosis, 106-107
therapy, 107-108
- Ischemia. *See* Myocardial ischemia
- Ischemic cardiomyopathy, 301-302
- Ischemic contracture, nisoldipine cardioprotective effect in rabbit hearts, 365-369
- Ischemic heart disease
fibrous matrix function, 305, 306, 308-309, 310
organic nitrate ester and, 703
ranolazine effect on LV regional diastolic function, 741-746
- Ischemic heart failure, isosorbide 5-mononitrate absorption rate and, 697
- Ischemic preconditioning, 465
- Ischemic right ventricular dysfunction, 393-404
contributing factors, 401
management of, 402
mechanisms of, 396
- ISIS-4 trial, 644, 720
ACE inhibitor trials, 469-471
- Isolated systolic hypertension, 667
- Isoproterenol, 535-536
- Isosorbide dinitrate (ISDN), 720, 723
chemical structure of, 702
clinical pharmacokinetics of, 693-697
combination therapy with captopril, 496
crosstolerance with nitroglycerin, 490
favorable hemodynamic effect on infarct related heart failure, 119-121
long-acting nitrates, 643
mechanisms of action, 701-711
nitrates in congestive heart failure, 501, 504-505
nitrate tolerance mechanisms, 489-497
oral administration of, 696, 697
oral nitrates for stable angina, 611, 613-616, 620
- silent ischemia, 730
sublingual administration of, 696
transdermal administration of, 696
with hydralazine for dilated cardiomyopathy, 85
with hydralazine in congestive heart failure, 689
- Isosorbide dinitrate cream, transdermal nitrates for stable angina, 625, 626
- Isosorbide 2-mononitrate (IS-2-MN), 693, 695, 696
action mechanisms, 703
chemical structure of, 702
- Isosorbide-5-mononitrate (IS-5-MN), 489-490, 644
chemical structure of, 702
clinical pharmacokinetics of, 693-697
mechanisms of action, 701-711
oral nitrates for stable angina, 611, 613, 616-619, 620
silent ischemia, 730, 731, 732
with atenolol and nifedipine, 620
- Isosorbide mononitrate, transdermal nitrates for stable angina, 628
- Isosverapamil, added after onset of reperfusion to lessen stunning, 537
- Isradipine
binding affinities, 358
binding parameters and functional parameters, 357
cardiovascular ratio, 356-357
developmental changes in rats, 359-360
duration of effects during twice daily therapy in angina pectoris, 199-209
second generation drug, 356
vs. nifedipine, 200, 209
vs. nisoldipine, 209
- Isradipine SRO, for myocardial hypertrophy as response to hypertension, 153-160
- J curve, in antihypertensive therapy, 757-759
- Kaplan's deadly quartet, 8
- K^+ channel, nicorandil's vasodilatory action mechanism on coronary circulation in dogs, 137-144
- K-channel opener, nicorandil analogue action in canine heart, 227-233
- Kidneys
ACE-activity of ibopamine in chronic myocardial infarction in rats, 248-249
atrial natriuretic peptide effect with congestive heart failure, 76
moxonidine effect on rats and cows, 36
mononidine effect on rat urine flow rate, 43-47
quinapril hydrochloride effect on renal function in hypertensive patients with renal dysfunction, 271-275
- Korotkoff phase V, 736

- K-strophanthin, 377
Kussmaul's sign, 400, 401
- L1, for iron overload cardiomyopathy, 107, 108
- Lacidipine
lowering blood pressure, effect on coronary vasodilator reserve, 169-170
second generation drug, 356
- LAD disease, 455
- Laminin, 306
- Laplace principle, 330
- LaPlace relationship, 455
- L-citrulline, 603
- L-cysteine, 705
- Left ventricular aneurysm, 397
formation prevented by coronary collaterals, 327, 329-330
wall motion abnormalities after infarction, 338, 341
- Left ventricular dilatation, LV dysfunction after myocardial infarction and prognosis, 324
- Left ventricular (LV) dysfunction, 686
acute ischemic syndromes, 297-303
after acute myocardial infarction and unstable angina, 373-374
after angioplasty and resolution of coronary artery spasm, 373
after exercise-induced angina, 373
after open heart surgery, 374-375
cardioselectivity and, 358-361
due to hibernation in patients, 371-377
due to ischemic heart disease, 377
due to severe valvular disease, 377
due to stunning in patients, 371-377
interaction with ischemia after myocardial infarction, 335, 338, 339
plasma neurohormone measurements, 313-315
role of ACE inhibitors in, 691
- Left ventricular ejection fraction nisoldipine effects, 348, 349
prognostic index of risk after infarction, 341
- Left ventricular enlargement
clinical relationship with prognosis, 453, 454, 455
prevention of, 456-459
- Left ventricular function
after myocardial infarction and prognosis, 319-324
interaction with electrical instability after myocardial infarction, 335, 337-338, 339, 341
nicardipine slow release modifying in hypertensives, 167-168
nisoldipine (IV) effects after acute myocardial infarction, 345-350
nitrates in myocardial infarction, 640, 642
- Left ventricular hypertrophy (LVH), 8, 736, 738
- bisoprolol effects in essential hypertension, 837-842
decreased with antihypertensive therapy, 7
definition, 154
diabetic cardiomyopathy, 65
isradipine SRO for hypertension therapy, 153-160
J-curve in antihypertensive therapy, 757-759
reduction, and its effect on ventricular ectopy, 560-561
regression, and implication for treatment, 554
regression with quinapril, 735-739
reversal with specific therapy, 559-560
risk factor for sudden death, 557-561
salt intake and morbidity, 427-430
salt restriction, 430
significance in cardiovascular morbidity and mortality, 549-554
- Left ventricular remodeling
nisoldipine interaction favorable, 324
prevention of, 456-459
reversible LV dysfunction after myocardial infarction and prognosis, 320, 321
vasodilator combination efficacy needing test trials after infarct related heart failure, 119-121
- Leu-enkephalin, clonidine effect, 28
- Leukocyte adhesion, 608
- LIGAND program, 30, 32
- Lipid metabolism, insulin resistance and diuretic induced hypokalemia, 123, 124, 125, 126
- Lipid peroxidation, 536
- Lisinopril
for heart failure, 112
megatrials of nitrates postinfarction, 644-645
mortality risk decrease in GISSI-3 trial, 471
vs. captopril, 434
- L-NMMA (N-monomethyl-L-arginine), 439, 441, 442, 602, 607
vascular response in CHF patients, 77
- Loop diuretics, 123-124, 126
action onset and duration after oral administration, 125
- Low cholesterol, increase in risk of non-cardiovascular events, 871-874
- Low-density lipoprotein (LDL), 509, 510, 511-512, 513
NO-producing organic nitrate esters and, 703
- Low-density lipoprotein (LDL) cholesterol, guggulipid decreasing of blood lipoproteins, 659-664
- Low-dose infusion, nitroglycerin in myocardial infarction, 635, 638-639
- Low-frequency rhythm (LF), 690
- Lown's grading of ventricular arrhythmias, serial changes in DCM patients, 87
- Low output syndrome, ischemic RV dysfunction, 401-402
- Low-voltage activated (LVA) calcium channels, 354
- L-type calcium channels, 354
structural model and subunits, 566, 567, 568
- Lupitidine, 29, 36
- McNemars test of symmetry, 148-149
- Macrophages, 604
- Magnesium
suggested for alcoholic cardiomyopathy, 92
with ACE inhibitors for heart failure management, 115
- Magnetic resonance (MR) imaging, to detect iron levels, 106, 108
- Malnutrition, alcoholic cardiomyopathy, 89, 90
- Management of Vasospastic Angina at Rest with Continuous Infusion of Isosorbide Dinitrate study, 721
- Manidipine, second generation drug, 356
- Mann-Whitney test, 148
- MDL 72567, second generation drug, 356
- MDPIT study, 408
- Mean arterial pressure (MAP), 703
- Mechanical correction, 117
- Medical Research Council Working Party on Mild-to-Moderate Hypertension, 667, 669, 670
- Membrane proteins, senescent heart, 581-585
- Men
alcoholic cardiomyopathy incidence, 90
diabetic cardiomyopathy, 65
- Mepirodipine, second generation drug, 356
- Meta-analysis, hypertension treatment guidelines critique, 665-670
- Metabolic syndrome, 8
autonomic nervous control abnormalities in human hypertension, 11-18
- Methapyraline, 36
- Methionine, 491, 493
intervention for diabetic cardiomyopathy, 69
- Methyldopa
 α -methyldopa, 22, 23, 27, 35
hypertension treatment guidelines, 668
with thiazides, 7
 α -methylnoradrenaline, 21, 22, 24
 α -methylnorepinephrine, 28, 35, 38
- Methyl palmoxirate, intervention for diabetic cardiomyopathy, 69
- α -methyl-p-tyrosine, 38
- Methysergide, 37
- Metaiodo benzylguanidine (MIBG) uptake, diabetic cardiomyopathy, 67
- Metoprolol, 729
adjuvant therapy alone and with capto-

- pril for acute myocardial infarction, 875-876
- for dilated cardiomyopathy, 84, 85-87
- mortality reduction with LV dysfunction after myocardial infarction, 323-324
- and thrombolysis, in acute infarction in dogs, 479-486
- Metoprolol in Dilated Cardiomyopathy (MDC) study, 85, 87
- Metirapone, 706
- Mexiletine, not useful with ACE inhibitors for post MI patients, 116
- Microangiopathy, diabetic cardiomyopathy, 67
- Microvascular disease, diabetic cardiomyopathy, 66
- Mild-to-moderate hypertension, doxazosin vs. nitrendipine, 476
- Milrinone
- ambulatory treatment and increased mortality in heart failure patients, 337
 - in heart failure, reassessment of, 764-765
- Minnesota Living with Heart Failure Questionnaire, 765
- Minoxidil, no effect on LV mass, 560
- Mismatch metabolic pattern, 300
- Molecular biology, senescent heart overloading and failure, 581-585
- Monkeys, fish oil effect on atherogenesis in, 180, 181, 183, 184, 186-187
- Monophasic action potential (MAP), 877-878
- Morbidity
- antihypertensive therapy by the stepped-care approach, 7
 - LV hypertrophy significance, 549-554
- Moricizine, harmful to post MI patients given ACE inhibitors, 116
- Morphine analgesia, 719, 721
- Morphological changes, mechanical load effect in cultured myocardial cells from neonatal rat, 251-261
- Mortality
- antihypertensive therapy by the stepped-care approach, 7
 - LV hypertrophy significance, 549-554
 - nitrates in myocardial infarction, 635, 640-641, 644
- Moxonidine
- adverse side effects, 54-57
 - cardiac output, effect on, 50
 - centrally acting antihypertensive types and central nervous system targets, 787-797
 - dose-dependent fall in mean blood pressure of SHR rats, 35
 - effect on sodium excretion and urine flow rate in Sprague-Dawley rats, 43-47
 - fewer side effects, 8-9
 - hemodynamic studies, 49-57
 - left ventricular hypertrophy, effect on, 51
 - most selective and potent known ligand for I_1 receptors, 21, 24, 26
 - pulmonary resistance, effect on, 51
 - sedative effect, 50
 - as selective I_1 -imidazoline agonist, 27-38
 - single dose effect, 52
 - systemic vascular resistance, effect on, 50
 - vs. ACE inhibitors, 49, 52-54
 - vs. α_1 -adrenoceptor blocking drugs, 49, 52-53, 54
 - vs. atenolol, 49, 54, 57
 - vs. beta-blockers, 52-53, 54
 - vs. calcium antagonists, 52-53
 - vs. captopril, 53-54, 57
 - vs. clonidine, 52-53, 54, 55-57
 - vs. diuretics, 52-53, 54
 - vs. hydrochlorothiazide, 49, 54, 55, 57
 - vs. nifedipine, 49, 51, 53, 55, 57
 - vs. prazosin, 54, 57
 - withdrawal side effects, 55
 - with hydrochlorothiazide, 54
- MRFIT trial, 673
- Dr. Robertson's reply to Dr. Kaplan, 675
- meta-analysis of, 667
- Multicenter Diltiazem Post-Infarction Trial, diltiazem effect on heart rate and supraventricular arrhythmias, 151
- Multiple-vessel disease, neurohormones in LV dysfunction, 315
- Multivessel disease, aneurysm rarely seen with extensive collaterals, 330
- Muscarinic receptors, senescent heart overloading and failure, 581-585
- Myocardial blood flow, coronary vasodilator reserve calculated by measurement of, 169-170
- Myocardial collagen, fibrous matrix function in normal heart, in myocardial hypertrophy, and in myocardial ischemia and infarction, 305-311
- Myocardial function, prognostic factor after acute myocardial infarction, 319
- Myocardial hypertrophy, isradipine SRO for hypertensive, 153-160
- Myocardial infarction (MI)
- ACE inhibitors after, 436
 - adjuvant therapy (captopril, metoprolol, and their combination), 875-876
 - clinical risk factors and socioeconomic state factors, 335, 339
 - definition of heart failure, 451
 - endothelin and myocardial ischemia, 589-596
 - fibrous matrix function, 305, 306, 309-310
 - ibopamine neurohumoral and hemodynamic effects, 245-250
 - LV dysfunction after, and prognosis for therapeutic strategies, 319-324
 - neurohormonal activation in, 690
 - nitrate therapy, 635-645
 - organic nitrate ester use, 701-702
 - patient response to isometric exercise, 14
 - perfused by collaterals, 327, 328-329
 - postinfarction ventricular remodeling, 453-459
 - risk stratification after, 335-341
 - verapamil trials, 543-547
- Myocardial ischemia
- acute ischemic syndromes, 297-303
 - after infarction, risk factors, 336
 - blockade of IK_{ATP} by 5-hydroxy-decanoate, 749-755
 - calcium antagonists before onset of, 537-538
 - calcium antagonists given during, 538
 - calcium rise and reperfusion, 535, 537
 - calcium role in time course of electrical fibrillation threshold, 877-878
 - characteristics, 298
 - chelerythrine blockade of antiinfarct effect of ischemic preconditioning in rabbit hearts, 881-882
 - clinical conditions subjecting heart to, 373
 - contractile failure in early myocardial ischemia: models and mechanisms, 813-820
 - endothelin levels and, 589-596
 - epanolol treatment for reduction of, 211, 215-218
 - exercise-induced, acadesine effect in chronic stable angina, 193-196
 - fibrous matrix function, 305, 306, 308-309, 310
 - interactions with electrical instability, 336
 - interaction with electrical instability after myocardial infarction, risk stratification, 335-337
 - interaction with LV dysfunction, 338, 339
 - interaction with LV dysfunction after myocardial infarction, 335, 338
 - isradipine effects in angina pectoris, 199
 - left ventricular hypertrophy and hypertension linked to, 558
 - nisoldipine cardioprotective effect in rabbit hearts, 365-369
 - nitrates in, 727-732
 - nitrates in myocardial infarction, 639-640
 - possible mechanisms of delayed recovery, 298
 - role in collateral circulation and ventricular function, 327, 330-332
 - role in postinfarction heart failure, based on verapamil use in DAVIT II, 823-827

- Myocardial oxygen extraction, epanolol in coronary artery disease, 213
- Myocardial rupture, infarct expansion and, 455
- Myocardial scar, 337
- Myocardium, contractile failure in early myocardial ischemia: models and mechanisms, 813-820
- Myocyte hypertrophy, 301
- Myocyte necrosis, ischemic right ventricular dysfunction, 396
- Myofibrils, mechanical load effect on protein synthesis in neonatal rat, 255, 258, 261
- Myo-inositol, intervention for diabetic cardiomyopathy, 69
- Myosin, senescent heart overloading and failure, 581, 584
- Myosin heavy chain (MHC) mRNA, induced by mechanical stimulation in perfused beating hearts, 261
- N-acetylcysteine (NAC), 708
- nitrate tolerance mechanisms, 491-493, 722
- with isosorbide dinitrate, 493
- NADPH, 603
- Naloxone, 37
- Naphazoline, 24, 28
- National Cholesterol Education Programme Adult Treatment Panel, 663
- Natriuresis, associated with antihypertensive effect of imidazoline preferring receptor agonists, 43, 44, 46
- Neovascularization, coronary collaterals as stimulus for, 330-332
- Nephropathy, diabetic cardiomyopathy, 66, 69
- Nephrosclerosis, 8
- N-ethylnicotinamide
- action as K-channel openers, 227
- weak vasodilator action, 232-233
- NETWORK, enalapril for heart failure, 112
- Neurohormonal mechanisms, ACE inhibitors in heart failure and, 685-691
- Neurohormones, in patients with ischemic left ventricular dysfunction, 313-315
- Neuropathy, diabetic cardiomyopathy, 66, 67
- Neuropeptide-Y, decrease during nitrate therapy, 504
- New York Heart Association heart failure (NYHA), class I
- SOLVD trial and, 688
- New York Heart Association class II alcoholic cardiomyopathy, 92
- SOLVD trial and, 688
- New York Heart Association class III alcoholic cardiomyopathy, 92
- SOLVD trial and, 688
- New York Heart Association class IV, 686
- enalapril for alcoholic cardiomyopathy, 92
- NG 108-15 neuroblastoma-glioma cells, 28
- Nicardipine
- chronic stable angina, 299
- inotropic action, 567
- modifying peripheral hemodynamics and left ventricular function in hypertensives, 167-168
- slow release, modifying peripheral hemodynamics and left ventricular function, 167-168
- Nicorandil
- analogue negative inotropic effects in canine heart, 229-230
- chemical structure, 228
- for angina pectoris, 144
- nicorandil analogue action in canine heart, 227-233
- vasodilatory action mechanism with and without glibenclamide on coronary circulation in dogs, 137-144
- vs. nitroglycerin protective effects on hypothermic injury to immature cardiac myocytes, 129-134
- Nifedipine
- added after onset of reperfusion to lessen stunning, 537
- binding parameters and functional parameters, 357
- binding site, 566
- cardiovascular ratio, 356-357
- coronary dilator activity, 568
- diastolic dysfunction, 299
- first generation drug, 356
- hemodynamic effects, 569-573
- hypertension treatment guidelines, 668
- inducing hypotension in LV remodeling, 324
- intrinsic negative effect, 572-573
- L-type calcium channel potency, 359
- no inhibitory action, 357-358
- not recommended for patients with post myocardial infarction heart failure, 116
- protective effect of calcium antagonists at onset of ischemia or hypoxia, 298
- silent ischemia and, 729, 730, 731
- SPRINT-I study, 408
- SPRINT-II study, 408
- TRENT study, 408
- unstable angina and, 719, 720, 721, 722, 723
- vs. celiprolol effect on plasma lipids, 509-513
- vs. isradipine, 200, 209
- vs. moxonidine, 49, 51, 53, 55, 57
- with acebutolol, 572, 573
- Nifedipine Retard, 509
- Niguldipine, second generation drug, 356
- Niludipine, second generation drug, 356
- Nimodipine, second generation drug, 356
- Nisoldipine
- added after onset of reperfusion, 537, 538
- binding affinities, 358
- binding parameters and functional parameters, 357
- cardioprotective effect, 365-369
- cardiovascular ratio, 356-357
- coronary dilator activity, 568
- DEFIANT study of LV function and exercise performance after acute myocardial infarction, 407-416
- effects on LV function after acute myocardial infarction, 345-350
- hemodynamic effects, 347-349, 350
- increasing heart rate and decreasing LV systolic pressure generation, 300
- in DEFIANT study, 299, 302-303
- inhibitory action, 358
- lessening stunning, 536
- negative inotropic effect, 361-362
- plasma arginine vasopressin level changes, LV dysfunction patients, 313, 315
- reducing peripheral as well as coronary resistance, 324
- reflex sympathetic activation, 350
- second generation drug, 356
- tissue selectivity, 358
- unsuitable for use in acute phase of myocardial infarction, tachycardia risk, 350
- vs. isradipine, 209
- Nisoldipine-CC (Nisoldipine coat-core), 408, 409, 410, 411, 416
- DEFIANT I study, 408
- Nitrate dose escalation to override tolerance, nitrates for unstable angina, 719-724
- Nitrate receptors, 704
- Nitrates
- blocking endothelin actions, 596
- cardioprotection and myocardial infarction salvage, 636-638
- clinical pharmacokinetics of, 693-697
- for unstable angina, 719-724
- in congestive heart failure, 501-505
- in myocardial infarction, 635-645
- in silent ischemia, 727-732
- interaction with alcohol, for alcoholic cardiomyopathy, 93
- resistance, 639
- with beta-blockers, 619-620
- with calcium channel blockers, 619-620
- Nitrates in myocardial infarction, megatrials of nitrates postinfarction, 644-645
- Nitrate tolerance, 613-616
- adverse effects of long-acting nitrates, 620
- biochemical (vascular) mechanisms of, 491-493
- combination therapy, 496-497
- endothelium and nitrovasodilators, role of, 601-608

- in congestive heart failure, 501-505
mechanisms of, 489-497
"neurohormonal activation" hypothesis, 495
nitrates for unstable angina, 719-724
physiological (systemic) mechanisms, 493-496
- Nitrendipine
inotropic action, 567
second generation drug, 356
vs. doxazosin, 473-476
- Nitric oxide (NO), 720
action mechanisms, 701, 703, 704-705, 706, 707, 709, 710
exogenous and endogenous coronary nitric oxide, 601-608
nitrates in myocardial infarction, 636
secreted by vascular endothelium, endothelial control in heart failure, 438, 442-444
- Nitric oxide (NO) synthase, 601-608
- Nitroglycerin, *see also* Glyceryl trinitrate
beneficial effects with limitation of infarct size, 457
coronary effects with and without glibenclamide in dogs, 137, 138-142
cross-tolerance with isosorbide dinitrate, 490
intravenous (IV-NTG), clinical tolerance, 489-493, 496, 694, 695, 719-724
mechanisms of action of nitrates, 701-711
nitrates in congestive heart failure, 501, 502, 504
oral nitrates for stable angina, 611-620
oral administration of, 694
plasma concentration of, 697
sublingual and buccal administration, 694, 695, 722, 730, 731
sublingual, nitrates in myocardial infarction, 641-643
sublingual, nitrate tolerance, 491, 493
sustained-release, transdermal patches in therapy, 489, 494-495, 496
transdermal administration of, 694-695, 721, 723, 731, 732
transdermal, nitrates in myocardial infarction, 641-643
transdermal, oral nitrates for stable angina, 616, 617, 619, 620
treatment of infarct related heart failure, 119
vascular response in CHF patients, 77, 78, 80
vs. acadesine, 196
vs. nicorandil protective effects on hypothermic injury to immature myocytes, 129-134
with isradipine in angina pectoris study, 200, 201, 203, 205, 206
- Nitroglycerin ointment, transdermal nitrates for stable angina, 625, 626, 721, 723
- Nitroglycerin patches, transdermal nitrates for stable angina, 625, 626-630
- Nitroprusside
endothelial control in heart failure, 442-443
favorable hemodynamic effect on infarct related heart failure, 119-121
nitrates in myocardial infarction, 641
tailored therapy for advanced heart failure, 85
ventricular arrhythmia prevalence diminished by, 558
- Nitrovasodilators, role of endothelium and, 601-608
- N-monomethyl-L-arginine (L-NMMA), 77, 439, 441, 442
- Noncardiovascular mortality, low serum cholesterol increase in risk of, 871-874
- Non-drug treatment, hypertension treatment guidelines critique, 665-670
- Nonsudden cardiac death, LV dysfunction after myocardial infarction and prognosis, 323
- Noradrenaline, 224, 603
- No-reflow phenomenon, nisoldipine cardioprotective effect in rabbit hearts, 369
- Norepinephrine, 28, 35, 68
causing plasma volume decrease, 16, 17
congestive heart failure, 687, 688, 690
organic nitrate esters and, 703
prognostic value in patients with LV dysfunction, 313-315
sympathetic release as peripheral factor in congestive heart failure, 75-76
- Normal heart, fibrous matrix function, 305, 306-307
- N-type Ca^{2+} channels, 354
- Nuclear medicine, LV dysfunction assessment, 381-389
- Nuclear resonance scattering (NRS) from manganese-56, to detect iron levels, 106
- Nucleus tractus solitarius (NTS), 21, 22, 24, 28
- ω -conotoxin, blocking N channels, 354
- Omega-3 fatty acid, intervention for diabetic cardiomyopathy, 69
- One-vessel coronary artery disease, epa-nolol therapy, 211-218
- OPC-8212. *See* Vesnarinone
- Open heart surgery, before LV dysfunction, 374-375
- Oral inotropes, and digoxin, reassessment in treatment of chronic heart failure, 761-766
- Oral nitrates, in silent ischemia, 727-732
- Oral nitroglycerin, oral nitrates for stable angina, 611-620
- Organ damage, hypertension treatment guidelines critique, 665-670
- Organic nitrate ester ($R-O-NO_2$), 705
- Organic nitrates, tolerance mechanisms, 489-497
- Organic nitrate esters, mechanism of action, 701-711
- Osmolality, congestive heart failure correlation of blood levels, 76
- Overweight, 11, 15
- Oxymetazoline, 28, 31-32
- Pacemaker, conduction tissue disease and hypertrophic cardiomyopathy, 95, 98
- Papilledema, with retinopathy, 7
- Patient selection bias, 389
- PC12 cells, 28
- Pentaerythritol tetranitrate (PETN), 613, 619
mechanisms of action, 701
oral nitrates for stable angina, 611-620
- Percutaneous transluminal coronary angioplasty
before LV dysfunction, 373
chest pain and development of collateral circulation, 327
fish oil and restenosis in patients after, 185-188
ischemia giving rise to ventricular arrhythmias, 336
- Perindopril, 434
hypotension risk, 469
- Perindoprilat, and transient inward current in rabbit hearts, 647-650
- Periodic acid Schiff reactive deposits in hearts, diabetic cardiomyopathy, 69
- Peripheral hemodynamics, modified by nicardipine in hypertensives, 167-168
- Pertussis toxin, 28-29, 708
- Pharmacodynamics, moxonidine effect, 49-50
- Pharmacokinetics
moxonidine, summary of, 52
moxonidine vs. other antihypertensive drugs, 49-57
nitrates, clinical pharmacokinetics of, 693-697
- Phenoxybenzamines, 28, 31, 32, 37
hemodynamic response in dogs to hind-quarter compression, 14-15
- Phentolamine, 28, 36
alpha-1 receptors in Syndrome X, 224, 225
not normalizing hyperemia in congestive heart failure patients, 77
- Phenylalkylamines, mode of action, limitations, efficacy and use, 565, 567, 568, 569-573
- Phenylephrine, 28, 31-32
endothelial damage, 444

- Phenylethanolamine-N-methyltransferase, 29
- Phenylethylamine, 32
- Phenytol
interaction with alcohol, for alcoholic cardiomyopathy, 93
not useful with ACE inhibitors for post MI patients, 116
- Phlebotomy, for iron overload cardiomyopathy, 108
- Phosphate buffer, evaluation of storage solutions on hypothermic injury to immature myocytes, 851-858
- Phosphatidylinositol (PI) cycle, 180
- Phosphodiesterase (PDE) inhibitors for congestive heart failure management, 84
in heart failure, 764-765
inhibition slight for SDZ 218-135 as positive inotropic agent, 239
producing unacceptable side effects in chronic heart failure patients, 84
- Phospholamban, 462, 463, 465, 466, 709
- Physical deconditioning, congestive heart failure, consequences of adaptations, 75, 78-79
- Pigs, fish oil effect on atherogenesis in, 180-181, 183, 186-187
- Pimobendan, in heart failure, reassessment of, 765
- Pimobendan Multicenter Study Group, 765
- Pindolol, 723
vs. epanolol, 216
- Piperazines, ranolazine, 741-746
- Piperoxan, 37
- Piretanide, for dilated cardiomyopathy, 84
- Plasma catecholamines, elevation in young subjects with mild hypertension, 11
- Plasma concentrations
clinical pharmacokinetics of nitrates, 893-897
isradipine in angina pectoris, 201, 202, 205, 206
norepinephrine, 685, 686, 687, 689, 690
renin activity (PRA), 669, 686, 687, 688
- Plasma lecithin cholesterol acyltransferase activity (LCAT), 509, 510, 512
- Plasma lipids, celiprolol vs. nifedipine effects, 509-513
- Plasma neurohormones, ibopamine in chronic myocardial infarction in rats, 245-250
- Plasma norepinephrine (PNE), reduction by ibopamine in rats with chronic myocardial infarction, 244-250
- Plasminogen activators, thrombolytic agents, 801-809
- Platelet activating factor, 601, 603
- Platelet-derived growth factor, inducing diltiazem inhibitions in vascular smooth muscle cells, 861-869
- Polyunsaturated (n-3) fatty acids, fish oil and prevention and regression of atherosclerosis, 179-188
- Polyvalent antagonists, cardioselectivity of calcium antagonists, 353
- Positron emission tomography, 387, 727
alpha-1 receptors in Syndrome X, 221-225
imaging, LV dysfunction, 385-387
- Post-extrasystolic potentiation (PESP), regional myocardial dysfunction changes induced by, 321, 322-323
- Post-infarction
ACE inhibitors and ventricular enlargement, 112-113
DEFIANT study of LV function and exercise performance, 407-416
fibrous matrix function, 305, 306, 309-311
- Postinfarction angina, coronary collaterals and ventricular function, 328
- Post-infarction arrhythmias, verapamil effect studied in DAVIT II trial, 147-151
- Post-infarction remodeling, fibrous matrix function, 305, 306, 309-311
- Postinfarct left ventricular dysfunction, 299
- Post-myocardial infarction, additions to ACE inhibitors, 115-117
- Potassium
contractile failure in early myocardial ischemia: models and mechanisms, 813-820
with ACE inhibitors for heart failure management, 115
- Potassium-channel opener, nicorandil analogue action in canine heart, 227-233
- Potassium channels (K^+)
charybdotoxin sensitive (ChTx), 704
nicorandil's vasodilatory action mechanism on coronary circulation in dogs, 137-144
- Potassium channels (K_{ATP}), contractile failure in early myocardial ischemia: models and mechanisms, 813-820
- Prazosin, 37
effect on myocardial remodeling, 121
pretreatment attenuation of response to i.c.v. moxonidine, 43, 44-45, 47
vs. moxonidine, 54, 57
- Preconditioning, 300-301
characteristics, 298
- Prinzmetal's angina, 336, 719, 720
before LV dysfunction, 373
calcium antagonists for effective therapy, 565
- Primary hemochromatosis, iron overload cardiomyopathy, 102, 106
- Probuco, 663
- Procainamide, interaction with alcohol for alcoholic cardiomyopathy, 93
- Procollagen III, 306
- Prodrugs, organic nitrate esters as, 704
- Prognosis
additions to ACE inhibitors for post MI patients, 115-117
LV dysfunction after myocardial infarction, rationale for therapeutic strategies, 319-324
- Progression, atherosclerosis, fish oil effect, 179-188
- Progressive heart failure cycle, 686
- Promethazine, 29
- Propafenone, for hypertrophic cardiomyopathy, 98
- Propranolol, 37
causing plasma volume decrease, 16
effect on senescent heart, 584
mortality reduction with LV dysfunction after myocardial infarction, 323-324
pretreatment for SDZ 218-135 in rat hearts, inotropic action studied, 240-241
- Prospective Randomized Milrinone Survival Evaluation trial (PROMISE), 764-765
- Prostacyclin, 601, 603
- Prostaglandin synthesis, 704
- Protein kinase C, 710, 881-882
- Protein synthesis, mechanical load effect and morphological changes in cultured myocardial cells from neonatal rats, 251-261
- Proteinuria, 7
- Proto-oncogenes, 465
- Pro-urokinase, thrombolytic agents, 801-809
- Prudent diet, guggulipid decreasing of blood lipoproteins, 659-664
- Pseudotolerance, 606
- Pulmonary edema, 7
nitrates in congestive heart failure, 504-505
- Quality of life
trade-off for increase in life expectancy, 7
vasodilators for infarct related heart failure, 119-120
- Quinapril, 690
dosage, 275
quinapril hydrochloride effects on renal function in hypertensive patients with renal dysfunction, 271-275
regression of LV hypertrophy, 735-739
with furosemide, 272
- Rabbits
chelerythrine blockage of antiinfarct effect of ischemic preconditioning, 881-882
fish oil studies related to atherogenesis, 180, 181-183, 185, 187
moxonidine presynaptic action, 38

- nisoldipine cardioprotective effect, 365-369
 SDZ 218-135 as positive inotropic agent in rabbit heart, 237-238, 241-242, 243
 Racemic threitol tetranitrate, 704
 Radioisotopes, thallium imaging to assess left ventricular dysfunction, 381-389
 Radionuclide angiography
 measurements before and after IV nisoldipine to check LV function after infarction, 345, 346
 to study iron overloads, 106
 Radionuclide ventriculography, 382
 to detect iron levels, 106
 Ramipril, 433, 435
 congestive heart failure treatment, 688
 postinfarct management, trials, 470, 471
 Random efficient regression (RCG) model, 202
 Ranitidine, 29, 36
 Ranolazine, effect on LV regional diastolic function with ischemic heart disease, 741-746
 Rate-pressure double product, isradipine therapy effect, 199, 207-208
 Rate-pressure product
 epanolol in coronary artery disease, 214, 215, 216, 217
 nisoldipine (IV) effects after infarction, 347, 348, 350
 Rats
 brain binding sites of imidazoline receptors, 28, 37
 central and renal I₁ imidazoline preferring receptors, 43-47
 clonidine displacing substance injection in C₁ area of RVLM, blood pressure reduction, 24, 25
 diabetic cardiomyopathy, 68, 69
 fish oil animal studies of atherogenesis, 185
 glyceryl trinitrate injections, 702, 703, 704
 ibopamine in chronic myocardial infarction studied, 245-250
 mechanical load effect on protein synthesis in neonatal rats, 251-261
 moxonidine's ability to normalize hypertension by an action within RVLM, 27, 29, 30, 33, 34
 neurogenic component in pathophysiology found, 12
 SDZ 218-135 pharmacological actions as positive inotropic agent, 235-243
 Rauwolfia, 22, 668
 Rauwolscine, 35, 37
⁸⁶Rb images, 387
 Reaven's syndrome, 8
 Rebound phenomenon, 23, 727-732
 Receptor dependent and independent
 NO release, endothelium and nitrovasodilators, role of, 601-608
 Recombinant tissue-type plasminogen activator (rt-PA), 458
 Referred care, 675
 Regional left ventricular function, metoprolol and thrombolysis in acute infarction in dogs, 479-486
 Regional myocardial ischemia, blockade of IK_{ATP} by 5-hydroxydecanoate, 749-755
 Regional wall motion, ranolazine effect on LV regional diastolic function with ischemic heart disease, 741-746
 Regional wall motion index, nisoldipine, 348-349
 Regression, atherosclerosis, fish oil effect, 179, 185-187, 188
 Reinfarction, ischemia role in postinfarction heart failure, based on verapamil use in DAVIT II, 823-827
 Relaxation, senescent heart overloading and failure, 581-585
 Remodeling, 113
 developmental changes in rats, 359-361
 nitrates in myocardial infarction, 637, 640
 postinfarction ventricular remodeling, 453-459
 vasodilators other than ACE inhibitors for infarct related heart failure, 119-121
 Renal disease, hypertensive, 27
 Renal failure, 8
 endothelin levels, 589
 incidence, 7
 quinapril hydrochloride effects on renal function in hypertensive patients, 271-275
 Renal impairment, 8
 quinapril hydrochloride effects in hypertensive patients with renal dysfunction, 271-275
 Renin-angiotensin-aldosterone system (RAS), 739
 activation in senescent heart, 585
 congestive heart failure and, 685, 686, 690
 neurohormonal mechanisms and ACE inhibitors in heart failure, 685-691
 neurohumoral activation, 456
 neurohumoral influences of heart failure, 448-449, 450, 451
 nitrate tolerance, 493, 495
 role in development of LVH, 558
 salt intake effect, 429-430
 Reperfusion
 as adjunctive therapy with nitrates in myocardial infarction, 641
 calcium antagonists added after the onset of, 537, 538
 calcium antagonists at time of, 536-537
 endothelial level reduction and myocardial ischemia, 589-596
 increased cytosolic calcium mechanism, 534-536
 injury definitions, 534
 metoprolol and thrombolysis in acute infarction in dogs, 479-486
 spectrum of injury, 533-534
 Reperfusion arrhythmias, SDZ 218-135 as positive inotropic agent, 235-243
 Reserpine, 22, 38
 discovery, 7
 with thiazides, 7
 Resistance vessels, nicorandil analogue action in canine heart, 227-233
 Restenosis
 atherosclerosis, fish oil effect, 185-186
 fish oil efficacy in prevention, after percutaneous transluminal angioplasty, 179-188
 "Resting state", 568
 Retinopathy
 diabetic cardiomyopathy, 66, 67, 69
 with papilledema, 7
 Revascularization, in post MI heart failure patients, 117
 Reversible dysfunction, 383-384
 Reversible myocardium contractive dysfunction, 319
 Rheumatic valve disease, 450
 Ribose, effect on exercise-induced ischemia, 195
 Right atrial pressure (RAP), ischemic right ventricular dysfunction, 397-398, 399, 400, 401, 402
 Right heart failure, pathophysiology, 393-394
 Right ventricular aneurysm, 397
 Right ventricular infarction, predisposing factors and incidence of, 394-395, 397, 400, 401
 Right ventricular ischemia, 395-396
 Rilmenidine, 21, 24, 37, 38
 blocked by an imidazoline-specific antagonist, 43
 centrally acting antihypertensive types, and central nervous system targets, 787-797
 dose-dependent fall in mean blood pressure of SHR rats, 35
 as I₁-selective antihypertensive, 27, 28, 29, 33, 35, 36
 Risk stratification
 after myocardial infarction, 335-341
 changes in thrombolytic era, 340-341
 multifactorial approach, 340
 RO-5967, second generation drug, 356
 Rostral ventrolateral medulla oblongata (RVLM), 38
 site of imidazolines stimulating I₁-imidazoline receptors to lower blood pressure, 27-33, 36
 sympathetic activity attenuated and

- regulation of blood pressure, 21, 24, 25-26
- Royal Brompton National Heart and Lung Hospital, 194
- Ruthenium red, 464
- Ryanodine, 464, 536, 584-585
to reduce systolic contraction in rats, 359-361
- 8663S, second generation drug, 356
- Salt intake, as determinant of left ventricular hypertrophy, 428-430
- Salt restriction, left ventricular hypertrophy, 430
- Salt sensitivity, 427
- Sarcoplasmic reticulum, Ca^{2+} pumps and ventricular failure, 461-467
- SAVE study. *See* Survival and Ventricular Enlargement (SAVE) study
- Scleroderma, endothelin levels, 589
- scu-PA, thrombolytic agents, 801-809
- SDZ 218-135
chemical structure, 236
positive inotropic agent pharmacological actions, 235-243
vs. DPI 201-106, 235-236, 243
- Secondary hemochromatosis, iron overload cardiomyopathy, 102, 106, 107
- Secondary prevention, beta-blockers and aspirin for patients with myocardial infarction, 546-547
- Selozok, 479, 481
- Senescence
heart overload and failure, 581-585
molecular data of heart, 583-585
physiological data of senescent heart, 582
- SERCA 2 gene, 464
- SERCA 2 isoform, 464
- Serotonergic pathways, centrally acting antihypertensive types, and central nervous system targets, 787-797
- Serum cholesterol, hypertension and, 669-670
- Sestamibi imaging, 389
99m-Tc-Sestamibi imaging, 385
- Sexual dysfunction, disopyramide therapy side effect, 277
- SG-86,
chemical structure, 228
nicorandil analogue action in canine heart, 227-233
- SG-103
chemical structure, 228
nicorandil analogue action in canine heart, 227-233
- SG-209
chemical structure, 228
nicorandil analogue action in canine heart, 227-233
- SHEP trial, 667
- Sickle cell anemia, iron overload cardiomyopathy and, 102
- Silent myocardial ischemia
nitrates in, 727-732
prognostic factor after acute myocardial infarction, 319, 320-323, 324
- Simendan
adverse events in healthy volunteers, 267, 268
hemodynamic effects in healthy volunteers, 263-268
vasovagal responses, 268
- Singlet oxygen, guggulsterone and, 663
- Sinoatrial node fibrosis, hypertrophic cardiomyopathy and, 96
- Sinus node function, abnormalities in hypertrophic cardiomyopathy patients, 96
- Sinus rhythm
alcoholic cardiomyopathy, 92
arrhythmia management in hypertrophic cardiomyopathy, 95-96, 98
digoxin with ACE inhibitors, 116
- Sinus tachycardia, beta-blockers for dilated cardiomyopathy, 83, 84
- Skeletal muscle fatigue, beta blockers, 568
- Skeletal muscle metabolism, congestive heart failure, peripheral factors in management of, 75, 78
- SKF-525A, 706
- SKF 86466, 24
- SK&F86466, 28, 33, 34-35, 37
- Small vessel disease, diabetic cardiomyopathy, 65-66
- Smoking
Dr. Robertson's reply to Dr. Kaplan, 675
Eskimos and incidence of atherosclerosis, 180, 188
sudden death and alcoholic cardiomyopathy, 89
- Smooth muscle cell, relaxants, 701-702, 703, 704
- S-nitroso-N-acetylpenicillamine (SNAP), 495-496
- S-nitrosothiols, 493
- Sodium
in arterial walls, and vasodilation in CHF patients, 77, 79-80
low-salt diet, doxazosin vs. nitrendipine efficacy, 473-476
salt intake, hypertension and cultural societies related, 425
- Sodium channel activation, SDZ 218-135 as positive inotropic agent, 235-243
- Sodium excretion, moxonidine effect in rats, 43-47
- Sodium nitroprusside, 606
action mechanisms, 701
- Sodium-proton exchange, 536
- Sodium restriction
dilated cardiomyopathy treatment, 83
hypertension and, 669
- Sodium retention, imidazolines, 36
- SOLVD study. *See* Studies of Left Ventricular Dysfunction (SOLVD) study
- Spearman rank correlation coefficient, 148
- SPECT images, 387
- Sphericity index, 458
- Spironolactone, for dilated cardiomyopathy, 84
- SPRINT database, 549, 553
- SPRINT I study, 408
- SPRINT II study, 408
- Stable angina
acadesine effect on exercise-induced myocardial ischemia, 193-196
oral nitrates for, 611-620
pathophysiology of, 612
- Staphylokinase, thrombolytic agents, 801-809
- Starling mechanism, 75, 302
- Starling's law, 582
- Static pressure, 448
- Stepped care, 675
approach, VA study, 7
- Stimulated platelet PAI-1, 709
- Streptozotocin, inducing diabetes, 67, 69
- Stress, effects on right ventricular function, 399-400
- Stress-redistribution-reinjection thallium imaging, 384-385
- Stroke
as result of hypertension, 7
risk, antihypertensive treatment and, 667, 669
sympathetic overactivity, 18
- Stroke volume index, epanolol in coronary artery disease, 215, 217
- Stroke work index, epanolol in coronary artery disease, 213, 214, 215, 216
- Studies of Left Ventricular Dysfunction (SOLVD) study, 299, 456
ACE inhibitors and neurohormonal mechanisms, 685, 686, 687-688, 689, 690, 691
alcoholic cardiomyopathy, 92
angiotensin converting enzyme inhibition in CHF patients, 80
aspirin diminishing ACE inhibitor benefits, 112
enalapril, 434
enalapril for heart failure, 112
Prevention Trial, neurohormones in LV dysfunction, 314, 315
- Stunning
calcium antagonists and amelioration of, 536-539
calcium antagonist usefulness, 533-539
calcium ions role, 534
characteristics, 298
compared to hibernation, 372
components (four), 533, 534
contractile dysfunction accompanied by an upregulation of sarcoplasmic reticulum Ca^{2+} ATPase gene, 461, 462, 464-467
definition, 534
diastolic dysfunction, 298-299

- ischemic right ventricular dysfunction, 393, 396, 401, 402
- left ventricular dysfunction in patients, 371-377
- losses of midwall and epicardial collagen, and increases in collagenase activity in dogs, 309, 310
- LV dysfunction after myocardial infarction and prognosis, 319-320, 324
- nisoldipine (IV) effects and functional recovery from, 350
- positron emission tomography imaging, 386
- role of phosphatidylinositol cycle, 536
- sestamibi imaging, 385
- voltage-sensitive calcium channels, 535-536
- Subclinical, abnormalities of left ventricular function, 89
- Substance P, 440, 441, 603
- Sudden death
- amilodarone for prevention in hypertrophic cardiomyopathy, 95
 - interactions and risks after infarction, 335, 336, 338, 339, 340, 341
 - left ventricular dysfunction after myocardial infarction and prognosis, 323
 - left ventricular hypertrophy as risk factor, 16
 - LVH associated with increased morbidity and mortality, 557-561
 - risk reduction with beta-blockers, 85
 - with hypertrophic cardiomyopathy, 95, 96-98
- Sulfhydryl depletion hypothesis, 491-493, 494
- Sulfhydryl (SG) group, 704
- Sulfobromophthalein (SBP), 705, 706
- Superoxide dismutase (SOD), combined with free iron, 105
- Superquantum interference device (SQUID), to detect iron levels in large organs, 106
- Supraventricular arrhythmias
- hypertrophic cardiomyopathy and, 95-99
 - verapamil therapy after an AMI, 150-151
- Supraventricular tachycardia
- DAVIT II trial, 148-151
 - hypertrophic cardiomyopathy, 95-99
- Survival and Ventricular Enlargement (SAVE) trial, 299, 324, 458, 470, 688, 689, 690
- ACE inhibition in CHF patients, 80
 - ACE inhibitors' use after infarction studied, 113
 - aspirin diminishing ACE inhibitor benefits, 112
 - beta-blockers with ACE inhibition for high risk post MI patient, 116
 - captopril and infarct-related heart failure, 433, 434-435, 436
 - significance, 435-436
- Swedish STOP trial, 667
- Sydnominines, 606
- Sympathetic nervous system
- alpha-1 receptors in syndrome X, 221-225
 - definition of heart failure and congestive cardiac failure, 449
 - salt intake effect, 429-430
- Sympathetic overactivity, moxonidine as a selective I₁-imidazoline agonist, 27
- Sympathetic tone
- discharge from central nervous system decreased, 13
 - overactivity and overreactivity in hypertension, 11-18
- Sympatholytic, imidazoline I₁ receptors in the RVLM mediating blood pressure reduction, 21-26
- Syncope, with hypertrophic cardiomyopathy, 96, 97, 98
- Syndrome X, 8, 221-225
- Systemic vascular resistance, epanolol in coronary artery disease, 213, 214, 218
- Systolic dysfunction
- alcoholic cardiomyopathy, 89-90
 - calcium antagonists not as benefit, 302
 - iron overload cardiomyopathy, 101, 102, 104-105, 106
 - preceded by diastolic dysfunction in diabetes, 66, 67
- Tachycardia, 12
- Target organ damage (TOD), 666
- Target-organ disease, 8
- Tension time index, 481
- Tetrahydrobiopterin, 603
- Thalassemia, iron overload cardiomyopathy, 102, 106, 107
- Thallium-201 imaging, 384-385
- Thiazides, 123-126
- action onset and duration after oral administration, 125
 - for hypertension, combination therapy, 7
 - as treatment of hypertension, 668, 669, 670
- Thiazolyethylamine, 36
- Three-vessel coronary artery disease, epanolol therapy, 211-218
- Threshold, electrical fibrillation threshold time course during myocardial ischemia and fibrillation, calcium role, 877-878
- Thrombolysis
- adjuvant therapy (captopril, metoprolol and their combination in acute myocardial infarction, 875-876
 - and metoprolol (oral) in acute infarction in dogs, 479-486
- Thrombolytic therapy
- ACE inhibitors after infarction studied, 113
 - ACE inhibitor trials and, 470-471
 - endothelin levels, 591
 - ischemic RV dysfunction, 402
 - novel agents, 801-809
- Thromboxane A₂ synthesis, 704
- Tiapamil
- second generation drug, 356
 - vs. verapamil, 567
- Timolol, 323-324
- Tiotidine, 29, 36
- ²¹⁰Tl, 387, 389
- Tocainide, 116
- Tolazoline, 28, 37
- Tolbutamide, 67
- Tolerability, felodipine ER and diltiazem
- SR as monotherapy for hypertension, 845-848
- Tolerance
- nitrates in silent ischemia, 727-732
 - nitrate tolerance mechanisms, 489-497
 - transdermal nitrates for stable angina, 625-630
- Torsemide, 125-126
- Total peripheral vascular resistance (TPR), simendan effect in healthy volunteers, 264
- t-PA, thrombolytic agents, 801-809
- Transdermal nitrates, in silent ischemia, 727-732
- Transient asymptomatic ischemia, LV dysfunction after myocardial infarction and prognosis, 319, 320-321, 323-324
- Transient inward current, perindoprilat in rabbit hearts, 647-650
- Transplants, maximum vasodilation in treatment of heart failure and DCM, 85-86, 87
- Treatment and Prevention Trials of Studies of Left Ventricular Dysfunction, 383
- Treatment of Mild Hypertension Study group (TOMHS), 430, 559-560, 673
- TRENT study, 408
- Triglycerides, guggulipid decreasing of blood lipoproteins, 659-664
- T-type (LVA) channels, 354
- Two-vessel coronary artery disease, epanolol therapy, 211-218
- Type I collagen, fibrous matrix function, 306-307, 308, 310
- Type I diabetes, diabetic cardiomyopathy, 66-67
- Type 2 calcium channel gene (CaCh2), 354
- Type II diabetes, diabetic cardiomyopathy, 66-67
- Type III collagen, fibrous matrix function, 306
- U46619, 142
- Ubiquitin, 465, 466
- US Hypertension Detection and Follow-up Program (HDFP), 666, 667, 668, 670, 673, 675

- U.S. Joint National Committee, 665, 666, 668, 669
- Unstable angina
before LV dysfunction, 373-374
before open heart surgery, 374-375
DEFIANT study of nisoldipine post-myocardial infarction, 410
endothelin levels, 590
nitrates for, 719-724
prognostic factor after acute myocardial infarction, 320-321, 323
Unstimulated, basal NO release, 601
- Vanadate, 69
- Vascular changes, and congestive heart failure, 75, 77-78
- Vascular smooth muscle cells, diltiazem inhibitions of DNA synthesis and Ca^{2+} uptake induced by insulin, IGF-I, and PDGF, 861-869
- Vascular smooth muscles, relaxants, 701-702
- Vascular volume, nitrates in congestive heart failure, 501-505
- Vasoactive intestinal polypeptide, 603
- Vasodilator Heart Failure Trial, *See* Veterans Administration Cooperative Vasodilator Heart Failure Trials I and II
- Vasodilator reserve, blood pressure lowering effect in arterial hypertension, 169-170
- Vasodilators, 83, 84-85, 87
- Vasopressin, 444, 448-449, 603
- Vein graft, fish oil effective in preventing accelerated graft intima proliferation, 179, 184-186, 187-188
- Ventricular arrhythmias
adjuvant therapy (captopril, metoprolol, and their combination) in myocardial infarction, 875-876
beta-blockers for dilated cardiomyopathy, 83, 85-86, 87
interactions and risks after infarction, 335, 336, 337, 338, 339, 340-341
LV dysfunction after myocardial infarction and prognosis, 323
with reperfusion injury, 534
- Ventricular dysfunction
assessment by nuclear cardiology, 381-389
due to hibernation, 375-377
- Ventricular dysrhythmias, LVH linked to, 557-561
- Ventricular ectopy
LVH linked to, 557-561
sudden death and, 559
- Ventricular fibrillation, 337
electrical fibrillation threshold time course, calcium role, 877-878
- Ventricular function, senescent heart overloading and failure, 581-585
- Ventricular premature beats, 340
- Ventricular premature complexes (VPC), verapamil effect following an acute myocardial infarction, 147-151
- Ventricular septal defect (VSD), hydralazine for afterload reduction in children, 161-166
- Ventricular tachycardia, 86, 87, 95-99
- Verapamil, 724
antianginal mechanism and negative inotropic effect, 353
binding sites, 565, 566, 568
cardiovascular ratio, 356
contraindicated for post myocardial infarction heart failure, 116
DAVIT II study, 147-151, 408
diastolic dysfunction, 299
first generation drug, 356
for dilated cardiomyopathy, 84
for hypertrophic cardiomyopathy, 98
hemodynamic effects, 569-573
in myocardial infarction, 543-547
interaction with alcohol for alcoholic cardiomyopathy, 93
ischemia role in postinfarction heart failure, based on verapamil use in DAVIT II, 823-827
isoveramil added after onset of reperfusion to lessen stunning, 537
no inhibitory action, 357-358
- positive response in patients with LV diastolic dysfunction, 302
postinfarct mortality positive trial, 566
protective effect in experimental diabetic cardiomyopathy, 65, 69
prototype with derivatives and their differences, 567
reducing left ventricular mass, 554
unstable angina and, 719
- Vernarone (OPC-8212), 84, 765
- Vesnarone Study Group, 765
- Veterans Administration (VA) studies, 7, 667, 673
- V-HeFT trials (I and II), 120, 505, 685, 688-690
- Viable myocardium, 384
- Voltage-operated calcium channels, cardioselectivity of calcium antagonists, 353, 358
- Volume expansion, 8
- Wall motion score index (WMS), 320, 321
- Warfarin, 93, 117
- Water-perfusible tissue index, 387
- Weckenbach blocks, 583
- White coat hypertension, 15
- Whites, salt sensitivity, 427
- WHO/ISH Committee, 665-669
- WHO study I and II, 735
- Wilcoxon-Mann-Whitney two-sample test, 202, 736
- Wilcoxon signed rank test, 148
- Wolff-Parkinson-White syndrome disopyramide therapy and impotence, 277
hypertrophic cardiomyopathy and, 96
- Women, diabetic cardiomyopathy, 65
- Xamoterol Severe Heart Failure Study, 434, 690
- Yohimbine, 28, 35, 37, 38, 43
- Zaprinast, 707
- Z-guggulsterone, 659, 663, 664

